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SIR WILLIAM EYRE .....

## Original Correspondence.

## IRON MINING IN DEVON AND CORNWALL.

SIR.—My attention was directed to some remarks in last week's Journal, inviting a perusal of the advertisement of the "South Devon Iron and Tin Mining Company," though a mistake was made in calling it the "Great Western," and no wonder, for the latter would not only have been the more appropriate but the more euphonious title. This, however, is of little moment, if the mines bear, and are likely to fulfil the promises held out in the lengthy prospectus. I have worked iron mines in various parts of Cornwall, and have seen much of iron mining in other parts in which this company purpose effecting operations; and I must do the writer the justice to say that he has taken a correct view of the case. The section near Wadebridge, called the Phoenix, is certainly one of the great lodes traversing that part of Cornwall from sea to sea, which have been extensively worked in Withiel parish, as Treffry's Iron Mine, Wheal Vyvyan, Withiel United, Wheal James, &c., and from which thousands of tons of rich ore have been shipped. Being concerned in the management of some of these, and having examined the lodes at the lowest points explored, I sound from experience that they hold to great depths, and continue to produce iron of high percentage, but have been discontinued from want of capital and perseverance by the various shareholders. In one instance particularly, by driving on the iron lode, as it had a northerly direction, we should have cut four valuable copper lodes, running east and west, which had been seen on their backs at surface; but the inadequate capital and want of unanimity prevented the mines being worked, and so lost us our prize. I also know the Atlas Works well, and have little doubt of the tin lode in that set being made highly remunerative. The iron with which the ore is at present associated will assuredly decrease as the shafts descend, and a beautiful *tin brood* exists in the stone; the great iron lode is of the richest description, and carriage from it comparatively easy.

The Hennock *shiny ore* has often been worked, but as often unsuccessfully, from the want of adequate means to bring the mines into operation, and to manipulate the ore when produced. It is well known that an imitation *black lead*, or "Servants' Friend," is easily and cheaply manufactured from this article, as well as there being a great consumption of it for lubricating machinery, &c. Both these have been sadly retarded by the irregularity and uncertainty of the supply from the mines. None of such good quality is produced from elsewhere, except at a place near to Launceston, but there in patches only, and not in quantity as at Hennock. I would suggest to the company the desirability of establishing works at Teignmouth for grinding and preparing the ore for the Manchester, Liverpool, and New York markets, these being the chief places of consumption.

I see the prospectus refers to a specular iron of great value for making steel. I have never seen any specular iron in these counties, and think it must be a misnomer. The iron ores from these counties are chiefly oxides and hematites, and are very valuable to the Welsh ironmasters to mix with the clay ores of their own production; in short, it is with them a *sine qua non* to procure the article from some source or other; it then becomes with them a mere matter of £ s. d. of comparative quality for their different makes.

Hitherto several private individuals have partially wrought iron at St. Austell, Par, Lostwithiel, Perran, and other places, at considerable profit, but their yield was but a drop in the bucket as regards either supply or consumption. Where otherwise conducted it has been by private companies of extremely limited means, who having raised the ore at a venture, and entirely at the mercy of the grasping smelters as to price and terms, whilst a drop in the value or depression in the iron trade extinguishes them, and gets iron mining a bad name. I am, therefore, glad to see this important branch taken up with so much spirit by so powerful a company, who, I presume, will not be affected by either of such causes, and will have capital to fully develop their properties, in doing which they may depend that their iron lodes will only be found the associates and guides to minerals of far greater value; though the iron alone, if prosecuted on the gigantic scale proposed, will be remunerative, in the same way as in any other well-conducted large, systematic business. Would a few scattered looms, or a few print works, yield the goods, price, or profits of one great manufacturing firm? Certainly not. Capital will command ability, ability will enable the works to be executed at half the cost and twice the regularity. In this the very magnitude and extent of the undertaking and interests will insure remuneration great and lasting, where in division and poverty they could not possibly be successful.

GEORGE HENWOOD.

## MINERS' PROVIDENT SOCIETIES.

SIR.—I was much pleased to read the letter of "Cornish Miner" upon this subject in a recent Journal, as I am equally certain that, considering the amount of money subscribed by Cornish miners, much more should be done for them when disabled, and for their families after their death. There is certainly one objection to the proposition of "Cornish Miner," which is that it would require to some extent the co-operation of the adventurers; but this is a difficulty easily overcome. So far as the adventurers' time being taken up by their *employés*, there could be no difficulty on this score, as some suppose when discussing the question; but the real obstacle is, that in too many instances the adventurers appropriate the money subscribed by the men to their own purposes. At every mine meeting during the next two months resolutions should be passed, providing that the doctor and club fund be kept totally distinct from the general accounts, and then something might be done with regard to the formation of a consolidated fund; but whilst the adventurers consider the doctor and club money their own, of course they are powerless to help themselves.

I am aware that in many instances the sum thus appropriated by the adventurers is so large that their present balance in hand would not meet the defalcation, but in such cases a call should be made, and the liability discharged. For my own part, I believe the passing of the Rating of Mines Bill, introduced into the House of Commons by Mr. Kendall, would not have inflicted more injustice upon the working miner than the present mode of dealing with the doctor and club fund; and with regard to adventurers, I cannot understand how it can be asserted that Mr. Kendall's was an unjust measure.

The whole of the arguments which have appeared in the *Mining Journal* and elsewhere only add to my conviction that mines are unjustly exempted from taxation. Indeed, I unhesitatingly assert that upon every opportunity I shall exert myself to have mine fairly rated; to pay the working miner every penny he earns, and thus give him an opportunity of providing for himself, if injured in his occupation, and for his family after his death; and to aid the organisation of a really useful Provident Society for Working Miners exclusively.—April 29.

A LONDON ADVENTURER.

## IRON MANUFACTURE—EARLY PATENTS.

SIR.—In a letter in your Journal of the 16th inst., from Mr. Robert Mushet, who so kindly and justly bears honourable testimony to the merits of my late father, he concludes by stating:—

"Reverting once more to the claims of inventors, and to the particular claim of Mr. Cort, as being the original inventor of grooved rollers, and of the puddler's furnace, we find that the persons do not date earlier than 1783, whilst there is a claim by William Wood, in 1728, for making raw iron, or iron metal in an air furnace with pit coal. There is also another claim by John Payne, in the same year, for passing iron between large metal rollers with proper notches, or furrows, upon their surface;" and, lastly, Thomas and George Orange, in 1766, claim the making of pig-iron into malleable iron in a reverberatory, or air furnace, with raw pit coal only. I think it must be admitted that in these claims there is foreshadowed the invention, not only of grooved rollers, but also of the puddling furnace. We do not know under what difficulties these inventors have come into use half a century sooner than they actually did."

If Mr. Mushet will do me the favour to renew his investigation, by reading the specifications of my father's patents, he will find that the "difficulties" to which he alludes were wholly insurmountable, because not one of the other inventors ever thought of, much less included, the processes specified by Henry Cort. Puddling, even in the best form, never could make malleable iron of the best quality without the other processes overlooked by Mr. Mushet—"balling, faggotting, and piling"—patented with the rollers in 1783. Nor could the manufacture of bar-iron be perfected by the rollers without the novel process of puddling, patented by Henry Cort, and the equally novel process of balling, faggotting, and piling, which latter process no previous inventor had even "foreshadowed" in any shape; and this last improvement is pronounced by one of the best judges, Mr. S. B. Rogers, the metallurgist, to be "second to none in the manufacture of bar-iron."

In a paper on Henry Cort's inventions for the manufacture of bar-iron, by Mr. Thomas Webster, M.A., F.R.S., barrister-at-law, read at the South Wales Institute of Engineers, last year, are the following remarks:—

Henry Cort, like most other pioneers in a great alteration, has had his detractors, those who represented how much of his processes were known before, how little he had added to the previous stock of knowledge, how much of the present practice is due to further and other improvements, these metal rollers with notches or furrows on their surfaces many have known, and this was suggested as by Payne, in 1728, for reducing to a state of malleability iron treated by various substances, which would make the like change result of such a suggestion, no trace or connection of a permanent change in the course of manufacture from or with such suggestion. The most eminent manufacturers of bar-iron made no alteration in their previous proceeding, and up to 1787 Mr. Richard Crawshay

went on forging his 10 tons of iron per week in the Welsh districts. It is perfectly true that iron bottoms have been substituted for sand. That by building the furnace larger a second charge of cast-iron may be introduced and partially heated during the finishing operations of the first, so as to economise time and labour; this is but an expansion and extension of the original invention, and furnishes the best evidence of the soundness of the principles upon which it rested; but Cort's description of his process, as published to the world in 1783 and 1784, and as conducted by him at his works at Fonthill, applies to the processes as practised at the present day. All that has been done during the last 75 years has been in the way of such addition to Cort's processes, and of such improvements on his furnace as experience and manipulation have from time to time suggested. Bessemer has not yet dispensed with Cort's puddling; or any other enterprising man sound an available substitute for the heating in a reverberatory furnace, or the piling and flogging, or the working and welding by grooved rollers.

R. CORT.  
9, Hemingford-terrace, Burnsbury-park, April 21.

## SAFETY-LAMPS.

SIR.—Some months since you spoke in very commendatory terms of one of two then newly patented inventions for improvements in Safety-Lamps—one, I think, by Mr. Mozart, a Belgian, and the other by Mr. Dubrule, a Frenchman; yet since the latter gentleman's lamp was exhibited at the Society of Arts both inventions appear to have sunk into oblivion. Now, whatever may be said against self-extinguishing lamps, I am convinced that they are the sole contrivances which will effectively lessen the number of colliery explosions, and on these grounds I trust that their use will be imperatively commanded in the next measure adopted by the Legislature for the regulation of coal mines. I fully concur in the opinion so frequently expressed, that such systems of ventilation should be enforced as would render the occurrence of explosions, comparatively speaking, impossible, provided such systems could be devised; but I think that the further our coal fields are extended the more will it be necessary to guard against casualties; indeed, the correctness of this argument has hitherto been fully proved, and I see no reason to hope that future workings will give more satisfactory results. It was thought that the appointment of Government Inspectors would lessen the evil, but if we look at the statistics since their appointment, we find that the increased safety from explosions has been really insignificant. Yet I do not contend that their services are useless, but, on the contrary, believe that with a more efficient Act mining operations would be brought into as good a position as they are in more despotic countries.

That the present Act needs revision cannot be questioned, and an early opportunity should be taken by those in a position to advise to suggest where the amendments should be made. It too frequently happens that no notice is taken of a subject to be legislated upon until it is too late to discuss the merits and demerits of the proposition with due consideration; and we have then complaints from practical men that the enactments cannot be acted upon. Let such men as Matthias Dunn, Martin Jude, and others whose opinions are really valuable, take the present opportunity of laying their views before the public, and I am sure that neither coal masters or others will oppose anything calculated to benefit the working miner.

W. N.  
April 29.

## EAST WHEAL RUSSELL, AND LEGITIMATE MINING.

SIR.—Much pains are being taken to ventilate the favourable points of this mine; and in Mr. Murchison's Quarterly Review, just published, there are no less than nineteen pages of closely printed letter-press to that end, concluding by recommending the shares as cheap at the present price; but, before acting implicitly on this advice, it would be well for intending purchasers to apply the ordinary rules of business, and inspect both sides of the ledger, they might then avert unpleasant reflections afterwards.

It will be accorded that a reviewer has a double duty to perform—a duty to the shareholders of the mine he remarks upon, but also a duty to the public at large, who are not shareholders, and whom he addresses. Now, we will refer to his last issue in January, in which a full report by Mr. Charles Thomas is given of this mine, where it is recommended as a necessity that a steam-engine be erected at Homersham's shaft. This recommendation is supported by the statements of other practical miners as being requisite. The question, therefore, arises, when is this new engine to be erected, and how is the expense to be met? It does seem that, in the reviewer's anxiety to supply machinery to Wheal Addams, he has entirely overlooked the requirements of East Russell. I apprehend a sufficiently powerful engine and appurtenances would cost something like £2000. If this outlay cannot be met by the mine it must be met by the shareholders, either present or future; and as no profits can be made for six months, yet the question arises are the shares cheap, with the prospect of so much work to be done?

I have no wish to disparage East Russell, but let us separate it from its "decayed" the Devon Consols, and judge of it on its own merits, by comparing the price and prospects with the dividend mines, in which list it is not yet placed. Now, the average value of established dividend mines is about six years' purchase of the dividends; therefore, to justify the present price, East Russell ought now to be paying quarterly dividends of 7s. 6d. per share; and who can say that she will for certain do that even twelve months hence? It is a large lode, and no doubt rich in places; but a large lode means great labour, and labour must be paid for; and it is quite likely, although there is a rich winze sunk a few fathoms below the 60, that this mine has yet at a deeper point to contend with the same unproductive floor of ground that has been met with in most of its neighbours. Let us hope for all parties that she will be as great a prize as the most sanguine can hope for; but, on the other hand, let us look at all sides of our bargain before concluding.

J. WILLIAMS.

## THE GREAT RETALIACK MINE.

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fathom, worth, according to the present market price, 14d. to 15d. per ton. The manager reports that by the end of next month 25 tons ore will be ready for sale, and in the following month 25 tons additional, at least, but should the ore continue down, which there is every reason to expect, the produce would far exceed these returns.

**ST. DAY UNITED.**—The course of tin at the bottom of Billing's shaft is worth from 100/- to 150/- per fm. The stopes in the 44, 2 fms. above, are worth fairly 90/- per fm. The run of tin in the upper levels has been from 40 to 60 fms. in length.

**EAST BERTHA CONSOLS.**—It is worthy of remark the extreme eagerness of capitalists to embark in undertakings when a fair chance of success is presented similar to this company. The principal features being on a splendid gossan lode, of precisely the same character as found in the Devon Great Consols Mine when first discovered by Mr. J. H. Hitchins; the main lode in East Bertha Consols having the same bearing, and intersected by a powerful cross-course, as was found in the above mine. The opinion of Mr. J. H. Hitchins, who stands pre-eminent as a judge of gossan, supported also by Capt. C. Thomas and others, being that whenever lodes are found containing this geological position and combination large deposits of copper ore are invariably found; hence the demand for shares received in East Bertha Consols, which is for three times the number to be allotted. The operations have already commenced, and no time will be lost in proving this valuable property.

**GREAT WHEAL VOR.**—Great activity has been exercised in changing the rods. By Monday last the iron rods had been removed, and during the week the wooden rods had been partially put in. Everything was working well. Several material improvements had taken place in the mine previous to the stopping of the engine.

**WHEAL ANNIE (Gwinear).**—is on the line of lodes of the most productive and profitable mines of the Camborne district—Dolcoath, North Dolcoath, and other rich mines further east. The shares are held principally by gentlemen having a large interest in North Dolcoath. Operations have already been commenced, the management being in the same hands as that of North Dolcoath. An inspection of several of the lodes has been made by the agent, Capt. James Paul (see report), and he has discovered in one of them silver ore of rich quality. It should be remarked that the lodes of Rosewarne and Herland United, which is now a profitable mine, will in all probability be found to traverse Wheal Annie's seat.

**NORTH ROBERT** has been inspected by several agents, and the mine is reported to be looking well.

**WHEAL WELCOME.**—The footway, and also the road leading to the bottom of Lady Beam shaft, are completed; this is from the east shaft, and we are about to put a nail on Lady Beam shaft above. The rest of our work is proceeding well, and with great spirit.

**THE CUMBERLAND BLACK LEAD MINES.**—History furnishes some very interesting details of the working of this mine, which was discovered in the reign of Henry VIII., and continued down to the reign of George II., about which time repeated attempts were made to break into the mines and abstract the black lead. Many engagements took place between the men employed at the mines, assisted by the inhabitants of Borrowdale, against the predators, which was at length stopped by the passing of an Act of Parliament for its protection; hence the necessity for store-rooms, dug out of the solid rock at the entrance of the levels, which were guarded. The ancient fire-arms are still preserved at the mines, with some interesting documents, &c. It is reported that the grand pipe was twice two millions sterling; Dixon's pipe, 55,000/-; and the smallest sop or pipe, 40,000/-; during the present agent's management, 200,000/. These pipes or veins appear to be coming together in Robson's level, a depth of 1000 ft. from surface, where there is a prospect of meeting with the body or main part, from which it is evident the sop or veins emanate in the upper workings, and which will no doubt be found an immense deposit of black lead of an increased value. The prospect of war will add to the demand for the inferior description of black lead, it being necessary for the casting of bomb shells, cannon shot, &c., independent of the finer sort for artistic purposes. The value of this property is appreciated in the locality, and the shares at increased prices are in demand, promising to become a most lucrative investment.

#### FOREIGN MINES.

**WHEAL JAMAICA (Copper).**—Capt. Francis: The lode in the end of the 65 north still continues the same size as last reported—3½ feet wide, composed of very light porphyry, and spotted throughout with copper ore, and carrying a branch of good working against the hanging wall from 6 to 8 in. wide; the ground at present is rather hard for driving, and there are now six men working in this end. The shaft is now down 6 fms. 3 ft. below No. 3, making a total from No. 2 of 16 fathoms; the ground at present is a little harder for sinking than it has been for some time past. The road making is being pushed on with all speed, but we are making rather slow progress, for we have a large slip of ground to take out.

**ELLERSLIE AND BARDOCK.**—Capt. Holman: The work is advancing steadily and successfully at all points.

**HOPE (Silver-Lead and Copper).**—Capt. Collom: The operations are progressing pretty satisfactorily. The shaft sinking from the 30 towards the deep level is now down 6½ fms. below the 45; the lode here still produces good spots of variegated and vitreous copper ore, but I cannot at present describe particularly the true character of the lode at the horizon, in consequence of our carrying, or taking down, but a very small portion of it in the sinking of the shaft. The shaft is being sunk between the underlying side of the lode and the country rock, in the softer part of each, which affords facilities for going down, our object being to sink the shaft with all possible dispatch, in order to form a communication with the deep level, for until this be effected no convenient means can be employed to work extensively on the lode, or to ascertain its true character and value at this depth. The driving of the 30 north-east on the course of the lode progresses favourably, and since my last report the lode has produced good stones of variegated and vitreous copper ore, which seems to indicate that another shoot of copper ore will be met with ere long in that direction; this, from the very favourable appearances of the lode, I fully expect. During the last fortnight we have driven about 4 fms. on the deep level; the ground is still porphyritic, and somewhat easier for driving into; the level is now 79 fms. in length, and we have probably about 120 fms. further to extend before the lode at the horizon may be intersected.

**RIO GRANDE.**—Capt. Arthur, Portland: We are working at Brookdale and Chesterfield, where we find the grey ground maintains the same kindly nature as heretofore. We continue to raise ore, but our operations are limited, for want of hands in sufficient number; the ore we get is, however, very good.

**VICTOR EMANUEL MINING COMPANY OF PIEDMONT.**—Miggiandone, April 13: The lode outside of the lower level is still producing rich copper ore. The men have commenced working in the eastern side of the ravine, where we hope to find a rich lode of yellow ore in the bottom of the old workings. During next month we expect to hole the winze sinking on the lode from the main level to the lower level, and as a part of this winze went through a bunch of ore worth from 4 to 5 tons per fm., which is still standing in it, we intend to put a number of men stoking after this communication shall have been made; at present the ground in this winze is very hard, and we are in consequence making slow progress. The end of the main level contains still a very large quantity of nickeliferous pyrites, but is poor for copper ore. The stopes over the winze in the main level produce the usual quantity of good work.

**WILDBERG MINING COMPANY.**—Z. Walls, April 16: During the past two months we have dressed and sampled 442 tons of silver-lead ore, and our estimated return for the present month is 240 tons. I beg to assure you that we shall lose no time in pushing the 20 lachter level towards the ore ground both on the Dorner and Erbtellberg lodes, and when these points are reached we hope to increase our returns. The only thing that perplexes me at this moment is how to get men enough; we could employ 30 additional men if we could tell where to obtain them.—Surface Work: The engineer and carpenters are very busy repairing the large water-wheel, which I hope will be in working order by Wednesday next.

**WARMTH FROM WASTE HEAT.**—Mr. H. J. Newcome thus explains his new mode of obtaining warmth from waste heat:—Take any stove (with a blower is preferable); from one long horizontal pipe attached make two or more openings in the top, each with a separate damper; fold up in tiers over each of these openings fine-pipes, of wrought or cast-iron, of any diameter above 4 in., each about 30 ft. long, terminating in boxes, the lids of which remove for sweeping; make them all terminate at the top in one large chimney or flue (a common house chimney is large enough), and thus you obtain an enormous amount of thin surface, which warms nearly instantly; enclose it in a case or room, and direct the streams where you will; a little wood is all the fuel needed.

**FASTENINGS OF RAILWAYS.**—Heretofore in using wood wedges or fastenings on railway chairs, such wedges have been liable to shrink or to become loose. To obviate this difficulty, the Hon. W. E. Cochrane proposes the introduction of pins, or rods, of a hard material, which will not shrink, through the wood fastening so that the ends of the metal or other pins may come flush with the sides of the fastenings. By these means, when the wood fastening is driven in between the cheek of the railway chair or rail, the ends of the pins will come in contact with the inner portion of the rail, and will, notwithstanding the shrinking of the wood, retain the rail secure.

**RAILWAY SPEED.**—The following is said to be a correct calculation of the speed in a given time on the railways of different countries:—England, main speed, 36; express, 60; maximum, 82. Germany, main speed, 36; express, 58; maximum, 76. United States, main speed 43; express, 86; maximum, 100. France, main speed, 49; express, 72; maximum, 86. It should be borne in mind that in the United States there are lines of the length of 8890 miles, the stations on which are at great distances from each other.

**CANDLES MADE FROM COTTON SEEDS.**—Amongst all the strange novelties the advanced chemistry of the 19th century is presenting to our astonished eyes, one of the most singular is the production of excellent candles from the refuse heaps of cotton seed, thrown away as waste, in the United States of America. Yet this strange idea is an accomplished fact, as will be seen by reference to our advertising columns. A company has recently been organised in Liverpool for working up these hitherto valueless seeds, which are now found to be capable of producing magnificent feeding cake for cattle (equal to the best linseed cake), a superior burning oil, and excellent candles and soap. Owing to the raw material being so cheap and abundant, this company starts with a fairer prospect of success than any similar undertaking that has come under our notice.

**GAS REGULATOR.**—Mr. S. Tomlinson, of Cincinnati, has invented a gas regulator, which is a modification of and improvement upon Hart's. It can be applied at less than 9d. per burner.

**IRON MANUFACTURE.**—All interested in the make or use of iron should read Mr. Rogers's new work on *Iron Metallurgy*:

"I do not hesitate to say Mr. Rogers's work is the most complete combination of sound science and sound practice that has yet appeared on Iron—beyond comparison."—DAVID MUSHET.—Published at the *Mining Journal* office, 26, Fleet-street.

\* \* \* Now Ready, price One Shilling, THE PROGRESS OF MINING IN 1858 By J. Y. WATSON, F.G.S., being the Fifteenth Annual Review. To be had at the *Mining Journal* office, 26, Fleet-street; of Messrs. Watson and Cull, St. Michael's-alley, Cornhill; or through any bookseller or newsman in town or country.

#### THE LIMITED LIABILITY ACT, AND ROYAL CHARTERS.

[FROM A CORRESPONDENT.]

Whilst the advantages of Limited Liability were obtainable only by the favoured few, companies constituted upon that principle were considered the most desirable for capitalists to embark in; and certainly the amendment of the law to such an extent as to enable the general public to avail themselves by a simple and inexpensive process of a boon previously conferred only by Royal Charters, secured at great cost, cannot materially have injured any one, whilst it has undoubtedly conferred upon the less wealthy portion of the community a privilege for which they have good cause to be thankful. That the Limited Liability Act would prevent fraud we think few were insane enough to believe, it being well known that professional schemers care very little what the law in force may be, provided capitalists can be found sufficiently gullible to supply the funds for their abortive undertakings, and thus make it worth the while of the promoters; but the real subject for consideration is, whether of the two the limited or the unlimited liability principle furnishes the greater opportunity for the successful employment of associated capital? This question has been so repeatedly answered in favour of limited liability, that further comment is needless, and it is only by making it appear that the argument is whether limited or unlimited liability is preferable, when in truth the matter in dispute is whether facilitating the employment of associated capital is beneficial or otherwise to the general community, that the advocates of the unlimited principle ever obtain an advantage.

In a recent debate in the House of Lords, the Vice-President of the Board of Trade stated that the "number of companies registered with limited liability was 1098, with a nominal capital of 75,442,887. Of these, 68, with a nominal capital of 7,439,240/-, had been dissolved, some by voluntary action, some by adverse proceedings of their creditors. This left 1030, with a nominal capital of 68,003,647. It was not very easy to ascertain how many of these had ceased to trade, for 207 of them, with a capital of 13,181,634/-, were in arrears with the returns required from them. But assuming that these had ceased to trade, there were yet 823 companies in existence, with a nominal capital of 54,828,000/-." Now, as it can scarcely be presumed that even the majority of the companies indicated as having ceased to exist have been dissolved through failure in business, it is but fair to conclude that want of support from the public has been the cause of dissolution; and, as the instances of the entire nominal value of the share being paid on allotment are comparatively few, it follows that the loss to capitalists has certainly not exceeded that which would have accrued under the old system, which offered fewer facilities for withdrawing when once embarked, although the failure of the scheme appeared inevitable. As to the companies registered without limited liability, 361 of this kind had been registered under the Act which had been trading before it. Only 14 companies had been formed since the passing of the Act, and 16 had been dissolved. This left 359 companies, with a capital of 8,500,000/-, trading under the Act without limited liability; 361 of this kind had been registered under the Act which had been trading before it. Only 14 companies had been formed since the passing of the Act, and 16 had been dissolved. This left 359 companies, with a capital of 8,500,000/-, trading under the Act without limited liability. As to the effect of the Act upon banking companies, 11 had been registered under the Act, with a nominal capital of 4,500,000/-, with unlimited liability; two of them had registered for the purpose of dissolution, so that nine were now existing, with a capital of a little more than 3,000,000/-.

Such being the plain state of the case, we contend that so far as can be judged from the experience of the two years during which the Act has been in force, it has, on the whole, worked well, although we cannot deny that some trifling amendments would render it far more effective.

#### COAL-BURNING LOCOMOTIVES.

The difficulty so frequently experienced in burning coal under locomotive engines appears to have been entirely overcome by a contrivance in use on the Taff Vale Railway, the result of which was communicated in a paper read before the Institution of Mechanical Engineers by Mr. Joseph Tomlinson, of Cardiff. After several experiments preference was given to steam coal over bituminous, and coal from the Aberdare four-feet vein was ultimately chosen. With this coal it was found that the least damage was done to the fire-bars, and the best result obtained by working the engine with a very thin fire, say not exceeding 9 in. with moderate load, and slightly thicker as the load increased, not, however, exceeding 15 in. in any case. In working with a light train, or down hill with a loaded train, it was found advantageous to keep even a more shallow fire than 9 in., for the blast being very light (as little or no traction is required down hill on this railway), the supply of steam could not be kept up unless the air was admitted with little difficulty; it is, however, necessary to be prepared in case of being stopped, and therefore a bright fire was a desideratum which could not be obtained unless it were kept thin.

The injury to the fire-bars was, however, still a great item, notwithstanding all the care that could be bestowed on them; for it is difficult to get a number of men to attend implicitly to rules which give them mole trouble than they have been previously accustomed to. It was, therefore, resolved to try an experiment, by covering up the entire surface of the bars with small pieces of fire-brick, not exceeding 3 in. cube, and putting the fire on them, so as to prevent the direct action of the fire on the iron of the bars; and it was found that, from the clean nature of the coal, no bad result took place in the generation of steam, while the bars now received little or no injury. This plan has, consequently, been generally adopted, but with the partial substitution of clinker from stationary engines instead of fire-brick alone. It has completely obviated the difficulty of the bars being burnt, and a set of bars will now last, on an average, four months, running about 100 miles a day, although previously two sets of bars per day were often found necessary. It is also attended with a beneficial result; for the small coal, instead of passing directly into the ash-pan unconsumed, adheres partially to the red-hot brick and clinker, and is consumed; and, notwithstanding that the Welsh steam-coal falls readily to small, and has little, if any, binding property, the engines can run 100 miles without cleaning out the ash-pan. Another description of coal, containing a large percentage of ash, has also been tried for getting up steam and making the first fire to start with, which clinkering slightly on the bars, most effectually protect them from burning: the use of this coal was, however, limited to 5 cwt. per day for each engine.

To place the engine more out of the control of the men, the plan was adopted which has been in use on other engines, of perforating the shield of the fire-door, and drilling five or six 2-in. holes in the door itself, so as to admit a little air above the fire; this was found useful, not only in assisting combustion, but also in preventing the blast from lifting the small particles of coal, and thereby choking the tubes.

**WORKING STEAM EXPANSIVELY.**—The very general use of high-pressure non-condensing steam-engines makes the economy of their working and construction a matter of considerable importance. There are many cases in which circumstances will not admit of the use of a condenser, such as the absence of a good supply of water without deep wells and expensive apparatus for lifting; or where the work to be done or the capital available will not admit of the expense of a condensing engine. In any of these cases it becomes a most important consideration that economy in the first outlay, which is a frequent reason for the use of a non-condensing engine, should be combined with economy in the working also. The economy obtained with a single slide valve by giving an additional lap and cutting off the steam at an earlier part of the stroke can be carried only to a moderate extent, and the use of a separate cut-off valve is found necessary to obtain the full advantages of expansion. With the view of obtaining simplicity and economy of construction, Mr. T. Chellingworth has endeavoured in an engine, with a single cylinder and a simple slide valve and without any additional valve gearing, to cut off the steam at an early portion of the stroke after having been admitted at a high pressure, and to expand it very nearly down to the atmospheric pressure. The steam is first admitted to the top of the piston, and after having made about two-thirds or three-fourths of the down stroke it is cut off and expanded to the bottom of the stroke; the same steam is then admitted to the under side of the piston and expands through the whole of the return stroke; being in fact used in the same manner as if it were cut off at about one-third of the single stroke of a cylinder double the length. In order to obtain this result it is necessary to have a piston with two different areas, the steam being first admitted on the smaller area and then expanded on to the larger one.

**RAILWAY SPEED.**—The following is said to be a correct calculation of the speed in a given time on the railways of different countries:—England, main speed,

#### Meetings of Railway Companies.

##### CARMARTHEN AND CARDIGAN RAILWAY COMPANY.

A meeting of shareholders was held at the company's offices, Queen-street, Westminster, on Tuesday, Mr. LLOYD DAVIES (Chairman of the company) presiding.

MR. OWEN BOWEN (the secretary) read the notice convening the meeting, and stated that it was necessary for shareholders to approve a bill to enable the company to construct their line of railway upon the narrow gauge.

The SOLICITOR read the Act at present before Parliament, and stated that such bill contained the clause incorporating the company in 1854, and cited the Deviation Act of 1854 and 1855, by which the company had constructed the railway from the junction of the South Wales Railway to Carmarthen with rails laid upon a broad gauge, but that no further portion of the line had been completed. As the construction of the broad gauge was attended with great and unnecessary expense, and as the requirements of the district through which the line was authorised to pass would be equally well supplied by a line constructed upon the narrow gauge as by a railway constructed upon the broad gauge, it was expedient that the Acts relating to the Carmarthen and Cardigan Railway should be amended for the purposes aforesaid, but that such purposes could not be effected without the authority of Parliament. The present bill was intituled "The Carmarthen and Cardigan Railway (Alteration of Gauge) Act, 1859," which repealed the provisions of the original Act relating to the company requiring the railway to be made on the broad gauge. The present Act repealed section 56 of the Act of 1854; section 9 of the Deviation Act of 1855; and section 16 of the Deviation Act of 1856, which authorised the railway to be constructed on the broad gauge.

THE CHAIRMAN observed that the meeting was purely of a formal character, being held pursuant to the terms of a resolution of the House of Lords, which required that before the bill, to which reference had been made, could be approved by the House of Lords, such bill must be sanctioned by the general body of shareholders. By the alteration of the gauge the line would be constructed for a much less sum than originally anticipated, and in the event of an extension of their line taking place great saving of expense in its working would be effected, so that by the present proceeding they were anticipating their future wants. He would, therefore, formally put the resolution to the meeting as to whether or not the bill be approved.

The motion, being put, was unanimously carried, and a vote of thanks to the Chairman being accorded, the proceedings terminated.

##### HERTFORD, LUTON, AND DUNSTABLE RAILWAY.

A special general meeting of shareholders was held at Fendall's Hotel, New Palace, Westminster, on Wednesday—Mr. CHAS. ROTH (one of the directors) in the chair.

MR. J. MARCHANT, jun. (the secretary) read the notice convening the meeting.

THE CHAIRMAN said the meeting had been convened for the purpose of considering a bill now pending in Parliament, intituled "A bill for the purpose of authorising the Hertford, Luton, and Dunstable Railway Company to raise further capital for the purposes of the Hertford section of their railway, for extending the period for the completion of the Luton section, and for other purposes." It was also necessary to rescind so much of the resolution of the proprietors passed at a general meeting on Aug. 9, 1858, as authorised the directors to create and issue certain preferential shares, part of the capital of each section of the company, with a dividend of 5 per cent. per annum, to be redeemable within a period of 10 years, and to authorise the directors to convert such shares into absolute preference stock, with a perpetual dividend of 5 per cent. per annum. To authorise the directors also to borrow on mortgage of the Luton section sums not exceeding 100,000/- in the whole the amount which the company were empowered to borrow under the 66th section of the company's Act.

MR. PEAD (the company's solicitor), in explaining the bill, said the main objects were to raise further capital for the purposes of the Hertford section, and to extend the period for the completion of the Luton section. Some time since power was given to the directors to create and issue new shares of the 10,540/- of the Hertford capital, as those shares had not yet been issued; it being found that the dividend was so small as positively to preclude the possibility of getting rid of that stock. Provision, however, had been made which enabled the company to raise that amount, and also the 10,000/- additional stock at 6 per cent. per annum. It was thought at this rate they would be enabled quickly to get rid of the unissued stock, and of the 10,000/- additional stock, in order to effect a full and perfect completion of their line. With regard to the Luton section, by the Act of 1855 it was stipulated that the works should be completed by the end of the ensuing July. Although the works were being prosecuted with all possible dispatch, the line could not be completed by the expiration of the stipulated time. It was, therefore, necessary to obtain an extension, and the directors had asked for, and had obtained, two years. The line would doubtless be completed in the course of a few months, but it became necessary, as a precautionary measure, to (*pro forma*) ask for an extension of time.

It was then resolved that the bill, as introduced into the House of Lords, and now submitted to the proprietors be approved.

A resolution was unanimously adopted rescinding a portion of that adopted at a previous meeting, and authorising the directors to convert the preference shares into absolute preference stock, with perpetual dividend of 5 per cent.

## THE MINING JOURNAL.

## WHAT IS SAID AND DONE AT "THE CORNER."

The Mining Share Market has not been very active since our last notice, and the transactions have been confined chiefly to speculative mines; nor do we anticipate much improvement until after the Easter holidays, and in all probability not before the country ceases to be agitated by the general election, which, no doubt, will engross the attention of all men interested in the welfare of the country. St. Day United, South Condurrow, West Seton, South Caradon, Great South Tolgas, Wheal Trelew, West Bassett, North Bassett, and Treweatha have been freely acquired for, and several transactions in those mines have taken place.

It is strange to witness the infatuation of those who retain the hope that East Russell will like the fabulous Phoenix, rise again. Shares have been dealt in during the week from 19½ to 9. Lady Bertha shares were depressed the latter part of last week, but have been considerably dealt in since, and still showing an upward tendency. We learn that the coming meeting will show a large balance in favour of the adventurers.

Hington Down shares have receded, in consequence of a falling off in the 100, but they are a discovery in driving east, with strong evidence of great improvements coming off in other points. They will sample next week from 220 to 225 tons of ore.

North Roscar, 22½ to 23½; Lady Bertha, 21s. to 22s. 6d.; Treweatha, 18s. to 20s.; May Park, 13½ to 14½; Butler and Bassett, 2 to 2½; Old Tolgas, 25½ to 28½; Caradon, 2 to 2½; Wheal Edward, 27s. to 3½; Trelew, 32 to 35; Tamar, 28s. to 30s.; Vale of Towy, 20s. to 22s. 6d.; Wheal Margaret, 70 to 75; West Condurrow, 13 to 14; North Downs, 5½ to 5¾; Wheal Margaret, 70 to 75; West Condurrow, 50 to 54.

From private letters received from the locality of Kelly Bray we hear that the mine is going out remarkably well, and the future samplings will be considerably increased. Grown continues to improve; the lode at the shaft is considerably enlarged, producing rich stones of solid lead, both east and west.

Wheat Welcome is spoken of in a very satisfactory manner by practical mining men; its position, surrounded by highly productive mines, with parallel lodes, is most highly favourable; the shares are quoted at from 5 to 5½. Hawkmoor is represented as looking very promising, and it only requires a little forbearance more before we shall see it in a more cheering aspect. Devon and Courtney Mine is looking very promising, especially in the 100, or bottom level.

The excitement which East Wheal Russell produced at "The Corner" by the extraordinary rise in the price of shares, and the subsequent reaction which followed, in consequence of a course of ore having been discovered in the 66 by two tributaries about eight weeks since, having a little subsided, it may not be deemed unacceptable to some if we were to briefly examine the profit and loss upon that occasion, and see who were the persons most benefited by that discovery. Our materials for the calculation are not official, but are given according to the best information. There were three parties engaged in this most interesting adventure—the company, the tributaries, and the speculative public.

The company, by their agent, granted a "pitch" to two tributaries at 13s. 4d. in 17.

The two months, which entitled them to two-thirds of the value of all copper ore they might discover and render marketable within the limits of the "pitch" during the period allowed, they paying for wheeling, hauling, and dressing the ore raised, as well as the powder, candles, safety-fuse, smith's costs, &c., used in raising the same. By a fortunate circumstance, not uncommon with that class of miners, they came a course of ore, and made, according to the physiognomy of miners, a "sturt," and the following will show the result:

March 17. 18 tons of tributaries' ore were sold from the pitch, at 8s. per ton ..... £144

April 21. 54 tons, estimated worth 16s. per ton ..... 864

30 tons, not saupied, in two parcels, expected to average 8s. per ton. 240

Total. 102 tons

Realising ..... £1248

Miners' portion, at 13s. 4d. in 17. (less costs, presumed about 70s.)—the two } £762

men's earnings in two months ..... 416

Adventurers' portion ..... 103

Less deduct lord's dues, 1-12th ..... 103

Leaving a profit by the discovery to the company ..... £312

Upon the discovery the shares rose to 32s. per share, giving a nominal value of 128,000. in the mine, and have now receded to 27s., marking the value 36,000.; consequently, there is a difference of 92,000., to be accounted for, or ascertained whether the speculative public have divided that sum as the result of a fortunate speculation. The most probable were the two tributaries, for it is evident that the company have made but little, if any, left behind; and we believe the public secured the least, for what they might have had in the advance in the shares, had they realised them in the sudden reaction of rapid decline. And it is remarkable that there still remains with some a belief that change may again take place, to enable them to recover some of their losses, but we look upon it as a most fatalistic hope. We have this day (Thursday) seen a report from an experienced and disinterested agent, who inspected the mine yesterday, and he concludes his report by stating—"In conclusion, the mine is very poor, therefore I can by no means recommend your purchasing even for speculation until the 88 is driven further by several fathoms, and if not productive at that point I shall fear of East Wheal itself ever making a mine."

From Mr. JAMES CROFTS:—The explorer of a new country always finds

at the more he extends his explorations, and the more he discovers, the more he has

discovered, which is very nearly the position of the writer regarding the present condition of his researches into the science of mining, and their application to practical purposes.

He is prompted to this style of remark by the simple fact of a query submitted

him by an adventurer in mines, as to "whether the risks appertaining to them were

more or less intense than those applying to joint-stock banks, or other largely dealt in units of a similar character of magnitude and importance?" into which capitalists, it may be stated without fear or exaggeration, venture fabulous sums, and receive from many of them (of which, notably, the Western Bank of Scotland and the Royal British Bank of London are striking examples) only a portion, loss, or ruin.

To the query thus put the writer the reply was that of all constituted means of employing spare capital, with a view to its aggrandisement, that of investing in mines ought to be the most lucrative of any, for the reason, amongst many others, that the field of operation, like that of a smile before referred to, has as yet not been overrun by the rush of capital, which does investments, such as in railways and banks, to a minimum rate of interest very much exceeding that of Consols. The disparity between which and the interest derived from British dividend mines is "far as the poles asunder." To gain, however, quadruple ordinary rate of interest on one kind of security over another is, with a large section of the general public, still a problem, and with the hope of enlightening the subject the thoughts are principally pained. Joint-stock companies raise their capital at once, and use it with more or less caution or success, or too often with signal failure; whilst mines (an older institution, and, therefore, carrying with it the sanction of experience), especially those conducted on the Cost-book Principle, the capital is called only as is wanted, under the regulation of short periodical meetings, bi-monthly or quarterly, with a view to its expenditure upon a scale based upon previous disbursements; the elements of security in the adventurer being that he at any of the meetings of the company stand face to face with his defined liabilities, and either continue his support to the concern, or altogether cease connection with it. It is true that the simplicity of the Cost-book has hitherto been invaded by Acts of Parliament "limiting" liability, bringing the principal features of the Joint-stock Acts into play, that the result is a complication, in which either much is promised and little performed—the promise, like chance "tending enchantment to the view," and mystifying instead of enlightening.

The whole of the above question lies in a simple enquiry—How is liability in any kind of speculative operation to be avoided? and it may be premised, not by subscribing large sums to be placed at the disposal of any body of men, however respectable and talented, which will assuredly be used with the extravagance appertaining to a plenitude of capital. Instead of an economy generated by a careful surveillance of past expenditure, and a postponement of means gradually to the future ends in view. Such being the genus of the Cost-book Principle as opposed to any other mode of raising or using capital.

During the week the Mining Market has exhibited some pleasing features, and, in particular, a great increase of investments from what the writer would designate as the non-religious class, the consequence of which has again been an advance in all the leading mining districts, the acquisition of the shares becoming difficult even at the advanced stations.

Out of upwards of 80 British copper, tin, and lead mines, now in course of regular payment of dividends at short intervals there are several standing prominent as

from 25 to 20 per cent. per annum; but the ascendancy must be given, in consequence of the advancing price of the metal, to the mines, for which, it will be observed, advanced quotations are given, whilst lead, and silver-lead in particular, rule every week higher in value.

Of the progressive class of mines there has not been such a continuous stand as would result in a palpable advance in value, but they are for that reason safer investments as speculative investments, and recommended accordingly. The public have

an additional advantage in studying mining in detail in several circulars and lists issued by the industrious portion of the market, which favourably contrast with advertisements for the sale of shares, some of which to sober minds appear, although they may not really be so intended, as rather bombastic than bona fide, and others showing

attention to business on so large a scale as to give rise to a suspicion on the part of reading minds that the quarter from which they emanate is rather a manufacture for those mines themselves. Be it understood, however, that the writer has no desire

to stand forward as a deprecator of efforts made to aggrandise mining business in a right direction, but contends, on the contrary, that the gambling element which may once have belonged to it, or should be, fast disappearing before the more legitimate efforts of those who regard it as ordinary questions of profit or loss on a moderate instead of an exaggerated scale.

East Wheal Russell shares continue to attract a large share of the attention both of

admirers and investors, and rule at about the same price as last week, and although the actual state of the mine has by no means changed for the better, the sustentation of price at about 10s. per share demonstrates a very remarkable degree of confidence in ultimate success. The dealings have been large in Lady Bertha, with the usual fluctuations.

North Robert, Hington Down, and others in the Tavistock district, are rising in concern, and consequently in favour. Wheal Sidney—a tin mine, in 49½ shares, Devon—was apparently on the road to dividends. Wheal Adams, the lead mine at Christow, near Exeter, respecting which so much discussion of an uneasy character has been engaged in it has taken place, does not apparently respond to the efforts made to sustain the shares, which implies a doubt as to whether the late rise was upon

merit as a mine—a question which will probably determine. Amongst

mines, as far as the market is concerned, may be ranked Great Wheal Alfred, 20s. 0000, which have been already expended in the prosecution of these mines, and consider-

able sums have been invested in them by a large number of partners and agents, with an anxious executive, and have

done all requisite means at their command for further development, and, moreover, in a perfectly sound financial condition, they are at present low prices worth the attention of the speculator.

The writer apologises to the mining public for an inability to enter into further details which a crowd like him (this week) a pressure of business compelling him to

confine his remarks to a particular, but he hopes to be able to resume his usual tone of communication in his next letter.

JURODE MINING COMPANY.—The Master of the Rolls has removed

Mr. John Davis, of 56, King William-street, from his office as official manager. Mr. W.

McCreight, of Gray's Inn, has been nominated interim manager, and a successor to

Mr. Davis will be appointed on April 27.

THE IRISH CONSOLS MINING COMPANY will pay to the contributors a

dividend of 1s. 11½d. in the pound.

CAE-CYNOY MINING COMPANY.—Mr. R. P. Harding has been appointed

general manager of this company.

NATIONAL ALLIANCE ASSURANCE COMPANY.—Sir W. Page Wood has

called a meeting for Wednesday, to appoint an official manager.

## SALES OF LEAD ORES.

## LEAD ORE SOLD DURING THE QUARTER ENDING MARCH 31, 1859.

Mines.	Tons.	Amount.
Minera	984	£14,250 4 6
Foxdale	550	10,574 0 0
Wheat May Ann	268	8,449 0 0
Trelawny	351	6,777 6 6
East Logylas	350	5,354 2 6
Cwmystwith	326	4,866 5 0
Frongoch	351	4,782 6 0
Dyllyfe	250	4,172 15 6
East Darren	230	4,172 5 0
Cargoll	180	4,169 17 5
Tamar	265	3,856 10 0
Wheat Exmouth	265	3,404 15 0
Maesyrerwdui	228	3,389 19 3
Rhosneigr	215	3,206 7 6
South Garris	135	2,886 15 6
Vale of Towy	174	2,312 2 0
Wheat Lelcott	130	2,307 15 0
Laxey	100	2,227 10 0
Wheat Frank Mills	205	2,113 15 0
Mount Pleasant	140	1,980 0 0
Cwm Erin	112	1,903 12 0
Maesysafn	125	1,769 0 0
Wheat Wrey Consols	113	1,746 2 6
Minera Union	119	1,721 14 0
Deep Level	120	1,689 10 0
Holywell Level	90	1,447 10 0
Newtownards	100	1,437 10 0
Herdsfoot	85	1,434 7 6
Bwlch Consols	90	1,369 10 0
Westminster	95	1,340 10 0
Roum Hill	90	1,334 5 0
Tamar Consols	60	1,201 10 0
Gellirbeiron	80	1,142 0 0
Cefn Brywno	70	1,055 5 0
East Wheal Falmouth	35	988 15 0
Kewick	68	945 13 6
Goginan	53	920 15 6
Nantymwyn	60	853 10 0
Bryndoff Hall	56	837 6 3
Cwm Sebon	50½	813 10 0
Llanerchydrayr	47	718 8 9
Llanwrst	49	703 4 6
Cardigan Consols	49½	702 16 0
Nanteos and Penrhiew	54½	691 4 6
Dyffrynwyd	45	639 0 0
Rhosywddol	45	632 5 0
Coetia Liya	38	582 17 0
Park	40	581 0 0
Abey Consols	40	547 0 0
Treweatha	24	543 0 0
Catherine and Jane	38	529 3 0
East Tamar Consols	30	477 15 0
Minnigaff	35	476 17 6
Horward United	32	435 9 0
Aberdovey	30	414 15 0
Llanerchydrayr	30	390 8 7
Llanfrynnach	24	371 7 8
Holmhus	26	365 0 9
Chirk Castle	33	346 10 0
Ballyvirgin	24	325 12 0
Speedwell	24	309 16 6
Reinmoor	13	305 10 0
North Trelewany	22	305 0 0
North Miners	20	301 10 0
Bronydon	20	292 0 0
Eaglebrook	18	254 14 0
Tynwyl	16	227 11 0
Great Wheal Badarn	15	226 5 9
Talacre	15	217 10 0
Mold	15	217 10 0
Gormethin United	14	189 0 0
Wheal Addams	16	185 0 0
Alt-y-Crib	11½	166 10 9
Pennant	10	145 0 0
Tea Side	10	133 17 6
Plasnewydd	7	107 7 6
East Pant Du	8	104 4 0
Bedolwyddan	5	78 6
Steddfod	5	71 17 6
Llangwyng United	4	56 10 0
Pencorse Consols	3	42 19 6
Eglang	3	42 18 9
New Crow Hill	1	17 15 0
Total	8523½	£136,222 18 5
Last quarter, ending Dec.	73	



on the north end; I have put the men to drive a little in that direction, so as to prove it; the rise over this level is yielding 10 cts. of ore per fathom. The winze sinking below Rose's level is yielding from 15 to 20 cts. of ore per fm.; this level is set to drive west, by four men, at 5¢ per fm. The lode is large, composed of mantic, spar, and spotted with ore, but not sufficient to value. Four stope are being worked by twelve men, in the back of this level and the level above, where the lode will on an average yield from 15 to 20 cts. of ore per fm. We are now crushing regularly in the Rhosddol valley; the crusher and all other apparatus are here, and answer well.

**NETHER HEARTH.**—W. Vipond, April 15: The stops on the Sun string east has been more productive this week, and is looking better at present than it has done for some time. We have not yet got the string in the cross-cut, but we have got the flats of clay, &c., again, which I consider a good indication, as the string is more likely to bear if the ground is easy. The clay flats are evidently the effects of the string, which must be slow at hand. We have now driven 15 fms. 3 ft., and are up to the point fixed for cutting it by the surveyor. We have commenced dressing the stuff for the crusher.

**NEW WHEAL ROSE.**—J. Vivian, N. Thomas, April 16: Great North Lode: Harriet engine-shaft is sunk 6 fathoms below the 45; the lode in the bottom of the shaft is 6 ft. wide, producing a little tin. The lode in the 45, driving east, is large, at present unproductive. The lode in the 30, driving east, is 4 ft. wide, very much improved in appearance in driving the last 6 ft., and producing more tin than for some time past.—Wheal Bramble: The lode at the engine-shaft, sinking under the 20, is 2 ft. wide, producing good saving work. The lode in the 20, driving east, is 2 ft. wide, producing good stones of tin; the lode in the same level, driving west, is worth 10¢ per fathom. The lode in the 10, driving east, is producing stamping work; the lode in the same level, driving west, is worth 6¢ per fathom; the lode in the winze sinking under this level east of engine-shaft, is worth 17¢; the lode in the stops in back of this level is worth 10¢ per fathom.

—Penpraze: We hope to complete the engine-shaft to the adit level in two months; the horizontal rods are being fixed; the bob-pit is built at Wheal Bramble; the bob-pit is sunk at Penpraze, and ready for the masons to commence building. We expect to commence forking below the adit in about nine weeks from this time. We have this day sold 2 tons 17 cwts. 3 qrs. 25 lbs. black tin at 77s. 6d. per ton, amount 225¢. This being our pay and setting-day, the bargains were let as usual. All the machinery on the mine continues to work well.

**NORTH BASSET.**—Thos. Glanville, April 15: Tufwork Setting: The 132 to drive west of the flat-rod shaft by six men, at 11¢. 10s. per fm.; lode producing stones of ore. The 132 to drive east of the flat-rod shaft by four men, at 10¢. per fm.; lode producing stones of ore. The 122 to drive west of the flat-rod shaft by four men, at 6¢. per fm.; lode 2 ft. wide, composed of spar, flookan, mantic, and occasionally good stones of ore. In the rise of the 40, driving east on the south lode, the lode is 1½ ft. wide, composed of spar, capel, mantic, and good stones of ore, promising for further improvement. In the same level west the lode is 1 ft. wide, yielding good stones of ore occasionally. In shodding this week no lode has been met with. There is no change to notice in any other part of the mine.

**SOUTH CARADON WHEAL HOOPER.**—W. C. Cock, April 16: The shaftmen are making fair progress in sinking. No. 3 lode, in the 62 east, is small, containing spots of copper ore and mantic. We are not yet through the branch of spar in the 62 cross-cut north; it is very wet, hard, and troublesome, consequently our progress is slow, and has been for the last three weeks.

**SOUTH CARN BREA.**—T. Glanville, April 15: The flat-rod shaft is down 7 fms. below the 78; the part of the lode sinking on is from 5 to 6 ft. wide, composed of mantic, intermixed with copper and tin ores. When the shaft is sunk deep enough for an 88 fm. level we intend to cross-cut north and south, to see the size of the lode at that point. The 78 is extended about 6 fms. west of the flat-rod shaft; the lode is yielding 1½ tons of copper ore per fm. In the present end the grey part of the lode is from 20 in. to 10 ft. wide, with some spar and mantic, yielding 2 tons of ore per fathom—a very kindly lode. The 78 is extended 7 fms. east of the flat-rod shaft; the part of the lode we are driving on is 2 feet wide, yielding a small portion of copper and tin ores, but not in sufficient quantities to value. The 68 cross-cut is extended 33½ fms. south of the flat-rod shaft. The deep adit level is extended 26½ fathoms east of the cross-course, and as the lode has been unproductive so far as opened on, we are now driving west of the cross-course, to prove it in that direction. Throughout the mine the ground has been hitherto hard for exploring, but I am glad to see that in the lower levels it is changing its character, and becoming much more favourable. We calculate to sample on Wednesday, the 27th inst., about 50 tons of copper ore.

**NORTH DERBYSHIRE.**—T. Broomehead, April 21: Our work at the engine-shaft at Calverough has been obstructed by the failure of the working barrel, the casting proving to be imperfect after being a short time in use; a new one is in active course of preparation, but for the present we shall not require its assistance, as we are this morning enabled to resume work without the aid of the steam-engine, having at length removed the obstruction in the adit, and allowed the water a free course, which will greatly facilitate the sinking for a few fathoms.

**NORTH DOLCOATH.**—Wm. Thomas, J. Paul, J. Thomas, April 18: The engine-shaft is sunk 7½ fms. from surface, and the ground very favourable for sinking. The south lode in the deep adit end, east from Vivian's shaft, is about 4 ft. wide, composed of spar, peach, mantic, and a little silver ore, altogether of a very kindly appearance; the lode in the same level, west from Vivian's shaft, is 2½ ft. wide, composed principally of spar, peach, mantic, and a little copper ore. The cross-cut north, on the cross-course, is driven about 6 fms. by the 62 to drive west of the cross-cut we shall intersect the Dolcoath silver course, and other lodes. The lode in the back of the deep adit, east from Vivian's shaft, is very rich for silver ore. The lode in back of shallow adit, east from Vivian's shaft, is producing good work for silver. On Thursday last we sampled silver ore composed to 20 tons 10 cwts., which will be sold on the 26th inst., and, according to previous samples assayed, the silver is of superior quality to our last sale.

**NORTH FRANCES.**—J. Moyle, April 16: The lode in Eales's shaft is 2½ ft. wide, composed of soft spar, peach, gossan, and decomposed granite—unproductive. From the change of ground we are obliged to timber the shaft with whole sets, and are sinking with all speed. The 72 west is driving by four men, at 40¢. per fm.; the lode is 5 ft. wide, composed of spar, peach, and iron: we are driving the south part of the lode, which is worth, according to assay, 26 pounds of black tin per ton; this end is about 20 fathoms west of shaft. The 60, west of shaft, is now about 3 fathoms west of cross-cut, making 5 fms. before ventilating the 72 with a winze or rise. In the 56, driving south, we are driving through a very hard channel of silex; 10 feet are driven south, and we expect to get through the silex into the granite shortly. Hunt's shaft is sinking from surface by nine men, at 17¢. per fm.; the ground is of the same character as it has been (killas), and I expect to sink about 2½ fms. this month, which will make 31 fms. from surface.

**NORTH GREAT WORK.**—J. Muffett, April 18: Since last report our progress has been rather slow in clearing the deep adit. We met with one of the north lodes traversing our set, which has been opened on both east and west of the adit for a great distance, as also the backs of the levels worked away, and a quantity of rubbish left in the adit; we however, expect after two or three days to get clear from this place, and go forward towards the mine with all speed.

**NORTH MINERA.**—T. Lester: Thomas's cross-cut east has been driven about 5 to 6 fms. under Lloyd's flat, and for the last 3 ft. has passed through several small branches of lead, which is being saved for dressing. Lloyd's cross-cut, west from the flat, has been driven about 6 ft., and the ground for that distance has yielded about 6 to 8 cts. of lead. We expect to communicate this cross-cut with Thomas's cross-cut within a week or ten days, when we shall be able to tram out the lead already broken from Lloyd's flat, through Thomas's level to the dressing-rooms. Pugh's level is still being driven with all possible speed, through very promising ground, and has passed through several small branches of lead. In Jones's shaft there is nothing new to notice since last reported on.

**NORTH TRESKERBY.**—T. Mitchell, April 14: Our new 50-in. cylinder engine was put to work on the 12th inst. There were present several principal adventurers, besides a large crowd of neighbouring miners, who came to witness the starting of this splendid engine. I am happy to say it works well, and all parties were highly pleased with the machine which it moves. This engine being recently turned out of the Perran Foundry, and being constructed on the most modern and improved principle, is considered equal, if not superior, to any other in the county, and great credit is awarded to Mr. Sims, the engineer, for the ability displayed. The pitwork consists also of the best quality, and is nicely fixed. We are drawing with a 13-in. box, and forked in 36 hours 10 fms. below adit; we hope in a very short time to see the bottom of the mine. We sampled on the 12th inst. 44 tons of copper ore of good quality; this being our first sampling, and happening on the same day as the starting of the engine, a prevailing excitement was consequently the result of such a singular but pleasing occurrence in this new mining district. I hold a strong opinion from what I have already seen, accompanied by reports and opinions of other practicals, that we shall ere long have a good and profitable mine.

**NORTH WHEAL TRELAUNY.**—H. Hodge, April 21: The lode in the 40 fathom level, south of Magor's shaft, is 1 ft. wide, producing stones of lead; the rise and winze are communicating with this level. The stops in the back of this level will produce 3 cwts. of lead per fathom.

**OLD TOLGS UNITED.**—G. Reynolds, April 19: We have this day commenced to drive the cross-cut south in the 52 by six men, and shall commence to sink the shaft again with all speed. The south lode in the 42 east is from 2 to 3 ft. wide, worth 1 ton of copper ore and 2 tons of blends per fm.; going west it is worth ½ ton of copper and 1 ton of blends per fm. The lode in the 32 west is split into two parts, each part producing good stones of ore, and are long we hope it will present a much better appearance. All the other departments are much the same as for some time past.

**PEDN-AN-DREDA UNITED.**—J. Carpenter, J. Thomas, April 16: In the 100 east and west, on the engine lode, the lode is still large, producing a little tin, and the ground continues very hard for driving. In the 90 west, on the engine lode, the lode is now 7 ft. wide, producing fair quality tin-stuff, opening out tribute ground. In the 90 west, on Skinner's lode, the lode is 4 ft. wide, producing low price stamping work. The new lode in the 55 east, south from engine-shaft, is still in disordered ground, and unproductive. The new lode in the 40 cross-cut, south from Bragg's shaft, is 2 ft. wide, composed of gossan, spar, peach, and spots of copper ore. The new lode in the 25 cross-cut, east from Bragg's shaft, is 4 ft. wide, opening out good tribute ground. Our other operations throughout the mine are progressing as fast as circumstances will admit.

**PENDEEN CONSOLS.**—Wm. Eddy, J. Carthew, April 16: In the 94 north we have not broken any of the lodes for the last 10 fms. driving; this end is now a few feet north of the winze, in as kindly looking a channel of ground for copper ore as ever we have seen in these mines; we expect to hole the winze in a few days, when we shall take down the lode. The copper lode is standing also in the side of this winze: we expect to give a good report of this ground next week. The stops over the 82, north of No. 1 winze, will produce 2 tons of copper ore per fathom. In the 82 north the lode is large and kindly, with copper ore, but not to value. The stops over the 82, north of No. 2 winze, will produce 3 tons of copper ore per fathom. The stops south of No. 2 winze contain bunches of copper ore; this ground we shall endeavour to work on tribute, as we think it will not pay for stopping on tutwork. The stops below the 70, north of No. 2 winze, are only about 7 fathoms behind the winze. The stops in the back of this level, four in number, are yielding as follows:—No. 1, 10 cwts.; No. 2, 11 cwts.; No. 3, 7 cwts.; and No. 4, 6 cwts. of lead per fm. The lode in the 205 south is 3½ feet wide, composed of spar, quartz, and lead, of the latter yielding 15 cwts. per fm. We have five stops working in back of the level which yield as follows:—No. 1, 18 cwts.; No. 2, 15 cwts.; No. 3, 4 cwts.; No. 4, 12 cwts.; and No. 5, 6 cwts. of lead per fm. We have now two stops in the back of the 190 instead of three, the ground in the other having been all taken away.—No. 1, producing 6 cwts., and No. 2, 9 cwts. of lead per fm. The ground in the back of this level is getting short, but we shall soon commence stopping in the back of the 236, which will enable us to keep up our present returns. We shall sample on Thursday, the 21st, 60 tons of lead, about the same quality as the last parcel, which will be three days earlier than the last sampling.

**PROVIDENCE (Lelant).**—A. Anthony, April 20: Our different stope and pitches continue their usual productiveness, present appearances warranting a full quarter's tin.

**REDMOOR.**—T. Taylor, April 19: We have no change of importance in any of our workings since last report.

**RIVER TAMAR.**—J. Cock, April 19: The 70 west is progressing favourably, the lode is producing stones of ore, and it seems likely to improve. In the winze sinking below the 58 the lode is about 2 feet wide, yielding good stones of copper ore; it has a kindly appearance, and the ground is not very expensive.

**REEDHOLM.**—Capt. Ridge, April 16: In Rathduff deep adit level the lode is 2 ft. wide, composed of spar, blonde, and good stones of lead; the end is letting out a large quantity of water. In sinking Treffry's shaft below the adit, on Kendall's lode, the lode is composed of spar; it has been dislodged by a cross lode from the north, considered to be the midway lode. We have commenced making a stop in back of the level; the lode is 9 in. wide, of blonde and lead, and paying well for working. In the midway level, driving west, the lode is 1 ft. wide, of blonde and strings of lead; this level has drained off water from No. 4 winze. In No. 1 stop, east of No. 2 rasc, the lode is 3 ft. wide, of a good mixture of blonde. In No. 2 stop, west of rasc, the lode is 18 in. wide, stones of spar, and lead occasionally. In No. 3 stop, west of lode is 2 ft. wide, of blonde and spar.—Upper Workings: In the 10, driving west, the level has passed through a poor piece of ground, which is seen going down in the upper adit level; we have about 2 or 3 fms. to drive to get into the second run of grey ground. In No. 1 stop, west of No. 2 winze, the lode is 4 ft. wide, a good mixture of blonde. In No. 2 stop, west the lode is 2 ft. wide, of blonde and stones of lead. In No. 3 stop west the lode is from 2 to 3 feet

wide, a mixture of blonde. The dressing is going on satisfactorily, and we intend to sample for 100 tons of blende the latter part of next week.

**RITTON CASTLE.**—S. Morris, April 20: We have cleared the foundation of the engine-house, and are busily engaged in preparing the count-house and other buildings. Upon the engine being delivered no time shall be lost in its erection, and I have every confidence upon the works being carried into effect of having equally as good and profitable a mine as those by which we are surrounded.

**ROSEWARNE CONSOLS.**—J. Richards, April 19: Boorman's shaft: The ground is not so hard for sinking. No alteration in the adit or 10 cross-cut, driving east of No. 1 shaft, since last report. In driving the adit cross-cut west of Hollow's shaft we have discovered another branch, and I have placed four men and two boys to drive on its course, and so far it is opening good tribute ground. In driving east of this shaft, in the last-mentioned level, we also discovered a branch last week, and put men to open on its course: what we have seen of it is good tribute ground. I have placed a party of men to clear up a shaft 50 fms. west of Hollow's. This shaft is cleared 5½ fms.: we find good stones of tin in clearing it. Our tribute department is without change to notice.

**SIGFORD CONSOLS.**—J. Hosking, April 19: There is no change in the appearance of the lode in the adit end. The south tin lode has been cut through, and found to be 12 fms. wide, yielding some good work for tin; the depth sunk is 12 ft., and as the influx of water prevents our sinking deeper, I propose to cut in on the other side of the valley, and if it is found of the same character at this point it will be of far greater value.

**SORTRIDGE CONSOLS.**—R. Jackson, April 21: At Hitchins's engine-shaft, in the 98, we have cut out the lode 1½ ft.; no north lode is yet reached; the lode is composed of spar, peach, mantic, and stones of ore, looking promising. In the 86 west the lode is 3½ ft. wide, yielding good stones of ore. In the 86 east the lode is 2 ft. wide, composed of spar, flookan, mantic, and a little ore occasionally. In the 62 west we are not through the cross-course yet. In Gilbert's rise in the back of the 80, on the south side, the lode is 1½ ft. wide, yielding good stones of ore. In the 50 west the lode is 2 feet wide, composed of spar, peach, mantic, and occasionally good stones of ore. In the rise in the 40, driving east on the south lode, the lode is 1½ ft. wide, composed of spar, capel, mantic, and good stones of ore, promising for further improvement. In the same level west the lode is 1 ft. wide, yielding good stones of ore occasionally. In shodding this week no lode has been met with. There is no change to notice in any other part of the mine.

**ST. MARY'S.**—R. Jackson, April 21: At Hitchins's engine-shaft, in the 98, we have cut out the lode 1½ ft.; no north lode is yet reached; the lode is composed of spar, peach, mantic, and stones of ore, looking promising. In the 86 west the lode is 3½ ft. wide, yielding good stones of ore. In the 86 east the lode is 2 ft. wide, composed of spar, flookan, mantic, and a little ore occasionally. In the 62 west we are not through the cross-course yet. In Gilbert's rise in the back of the 80, on the south side, the lode is 1½ ft. wide, yielding good stones of ore. In the 50 west the lode is 2 feet wide, composed of spar, peach, mantic, and occasionally good stones of ore. In the rise in the 40, driving east on the south lode, the lode is 1½ ft. wide, composed of spar, capel, mantic, and good stones of ore, promising for further improvement. In the same level west the lode is 1 ft. wide, yielding good stones of ore occasionally. In shodding this week no lode has been met with. There is no change to notice in any other part of the mine.

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ment continues much the same as for some time past, and although two or three of the eastern ends have slightly fallen off in value, yet, on the whole, our prospects, particularly in the western part, have lately improved.

**WHEAL MARY ANN.**—P. Clymo, H. Hodge, J. Harris, April 21: The cross-cut at the 160 is extended east 13 fms. towards the lode. The lode in the 150, north of Pollard's shaft, is 2 ft. wide, and worth 5/- per fm.; in the same level south it is 1 ft. wide, producing good stones of lead. In the 140 north it is 3 ft. wide, and worth 14/- per fm.; in the same level south it is 4 ft. wide, worth 10/- per fm. In the 130 north it is 2½ ft. wide, and worth 13/- per fm. In the 120 north it is 2 ft. wide, and worth 12/- per fm. In the 100 north it is 3 ft. wide, and worth 13/- per fm. Clymo's engine-shaft is sunk 4 fms. under the 110. The stops and pitches are producing much as usual. We sampled yesterday a parcel of lead ore, computed 86 tons, for sale on the 27th inst.

**WHEAL TECHIDY.**—J. Pope, April 20: In the 70 east, on the counter lode, the lode is 1 foot wide, composed of soft spar, mandic, and spotted with ore. In the 70 west the lode is 6 in. wide, at present unproductive. In the 60 fm. level east the lode is split in two branches, each about 4 in. wide, spotted with ore. In the winze sinking below the 50 the lode is 8 in. wide, producing ½ ton of ore per fathom. In the 60 cross-cut south nothing new since last reported.

**WHEAL TRELLAWNY.**—W. Byast, W. Jenkins, T. Grenfell, April 21: Smith's engine-shaft is sunk 6 fms. 4 ft. under the 152. In the 152, north of this shaft, the lode is 3 ft. wide, worth 7/- per fm.; in the same level south it is 2½ ft. wide, worth 8/- per fm. In the 142 north the lode is 2 ft. wide, worth 10/- per fm. In the same level south it is 2 ft. wide, worth 10/- per fm. In the 132, north of Chippingham's shaft, it is 3 feet wide, worth 7/- per fm. In the 130, north of ditto, the lode is 3 feet wide, worth 8/- per fm.—South Mine: In the 152, south of Trellawny's shaft, it is 18 in. wide, worth 4/- per fm. In the 142 south the lode is 2 feet wide, worth 8/- per fm.; in the same level north we are driving in kilns by the side of the lode. In the 130 south the lode is 3 ft. wide, worth 8/- per fm. In the 107 north it is 3 feet wide, worth 4/- per fathom. The stops and pitches are much the same as when last reported. We sold on the 16th inst. 75 tons, computed, crop lead ore, to Messrs. Sims, Williams, and Co., at 25/- 14s. per ton.

**WHEAL WRENS CONSOLS.**—P. Clymo, W. Hancock, R. Roskilly, April 21: The summen are engaged cutting cistern platt and bearer-holes in shaft at the 84. The lode in the 84 north is 3 ft. wide, producing ½ ton of lead per fm.; in the same level south it is 2 ft. wide, producing 7 cwt.s. of lead per fm. In the 74 north it is 4 ft. wide, producing 7 cwt.s. of lead per fm.; in the same level south it is 2 ft. wide, producing 6 cwt.s. of lead per fm. In the 64 north it is 2½ ft. wide, producing 6 cwt.s. of lead per fm. In the 54 north the lode is 2 ft. wide, producing 3 cwt.s. of lead per fm. The winze partially sunk under this level is at present suspended until the end is driven after it. In the 54 north it is 2½ ft. wide, producing 6 cwt.s. of lead per fm. In the 44 north it is 2 ft. wide, producing 5 cwt.s. of lead per fm. The pitches are produced much as usual.

**WHEAL UNITY CONSOLS.**—W. H. Reynolds, April 16: In the 55 east the lode is 2 ft. wide, and worth 10/- per fm. for copper ore. The lode in the flat-rod shaft is small and unproductive, but in 2 or 3 fms. deeper we shall get in the run of ore ground in the 55 end. At the engine-shaft, the men are making favourable progress in preparing for fixing a plunger in the 20 fm. level.

**YARNER.**—J. Hampton, S. G. Truran, April 19: Since writing our report last week a bunch of very good work has come in the 20 east, on the opposite part of the lode to that referred to in my last report; it is only partially laid open, but we have cut into it about 10 inches, and on Thursday this part of the lode will be taken down, when we believe we shall be able to report a further improvement. There is nothing else new in the mine.

**J. Hampton,** April 21: The lode in the 20 fm. level east is larger than the end, and is still improving, being now worth full 10/- per fm.; the grey part is from 1 foot to 15 inches wide, and increasing in size as the end advances.

**SUEZ CANAL.**—Every opportunity is eagerly seized by the supporters of this gigantic bubble to force it upon the attention of the public, and unfortunately the parties who are so energetic in propagating the puffs in its favour do not in all instances confine themselves to truth, and by this course are enabled to put forward more plausible arguments than truth would justify. For the information of British capitalists, it may be stated that, even supposing the Suez Canal scheme to prove as profitable as M. de Lesseps anticipates, it would be unjustifiable to hope for a return of more than 2 per cent. per annum on the capital invested; and taking the facts of the case into consideration, 1 per cent. is a far more probable estimate. These remarks are not thoughtlessly put forward, but are the result of mature deliberation, and if Englishmen suffer from speculating in an undertaking brought forward only to benefit a clique of designing foreigners they will, after having been so repeatedly cautioned by the English press, have themselves alone to thank for their misfortunes. To *bona fide* speculations, whether British or foreign, we shall be ever ready to give our support, but to those which appear in every respect likely to prove abortive we trust we shall never give countenance.

**SUBMARINE TELEGRAPHHS.**—The following is a summary of a statement given in a foreign scientific journal of the different lines where submarine telegraphs have been laid, up to the end of 1858, their length, and the date of their establishment:

	Length in miles.
1850. England and France.	221½
1852. England and Belgium.	70½
England and Ireland.	64
1853. England and Holland.	107½
Ireland and Scotland.	24½
1854. Italy and Corsica.	64
Corsica and Sardinia.	91½
Denmark (Great Belt).	14½
Denmark (Little Belt).	14½
1855. Denmark (Channel of the Sound).	11½
Scandinavia (Firth of Forth).	31½
Black Sea.	371½
Solent (Isle of Wight).	3
1856. Straits of Messina.	4¾
Gulf of St. Lawrence.	7½
Strait of Northumberland.	9½
The Bosphorus.	4½
Nova Scotia (Isthmus of Cano).	8½
St. Petersburg and Cronstadt.	8
1857. Sicily and Algeria.	149½
1858. Bay of Valencia (Ireland) and that of Trinity (America).	1827½
Total to 1858.	2771½

**MERCANTILE DISCOUNTING COMPANY.**—Facility in the discount of bills is a matter of material consideration to the mercantile and trading community, while at the same time the discounters realise a good percentage. The channels at present in existence for this purpose are considered inadequate to the daily augmenting trade of the country; therefore, it is proposed to establish a company to afford additional facilities for this purpose, including trade bills, from which the directors anticipate that a dividend of 10 to 12 per cent. on the paid-up capital will be realised for the first year. The enterprise, to be called the Mercantile Discount Company, is proposed to be divided into 4000 shares of 50/- each, of which 25/- is to be paid-up, and thus possess a capital of 200,000/. It is stated that about 1500 shares have already been applied for. Money on deposit will be received, upon which an interest will be allowed, the rate being regulated by the current interest given by similar establishments. Each application for shares must be accompanied by a payment of 5/- per share, but in the event of no allotment being made the money will be returned free of charge.

**PERCUSSION CARTRIDGES.**—Some interesting experiments were made at Chatham by Capt. Norton for the purpose of putting to a practical test the efficiency of the percussion cartridge invented by him. Capt. Norton's object in this experiment was to show the ease by which pieces of rocks, stumps of trees, and other obstructions to the passage of a body of troops, could be removed. The stump of a tree having been selected, Capt. Norton had a hole bored half way down, across the grain, and near the most knotty part. One of the new percussion cartridges was then inserted in the hole, and rammed down with an iron bar. On the bar being struck with a plank of wood the cartridge exploded, splitting the tree into a thousand fragments, demonstrating the value of these cartridges for engineering purposes.

**LONDON GENERAL OMNIBUS COMPANY.**—The traffic receipts for the week ending April 17 amounted to 10,574. 11s. 6d.

**THAMES TUNNEL COMPANY.**—Receipts for the week ending April 16, 68. 11s. 9d.; number of passengers, 16,461.

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\* \* \* We shall give a SUPPLEMENT with next week's Journal, in which will be published Mr. J. Arthur Phillips's paper "On the Metallurgy of Lead," with the discussion thereon, at the Society of Arts—several miscellaneous papers and letters will also be inserted.

\* \* \* With last week's MINING JOURNAL we gave a SUPPLEMENT SHEET, which contains—Successful Mining Enterprise; The Iron Trade, and Mr. S. B. Rogers; How to Ensure Success in Mining;—by Captain Charles Thomas; Colliery Machinery; Ventilation of Cornish Mines; Prevention of Accidents; Printing by Water-Power, &c., &c.

\* \* \* With the MINING JOURNAL of April 2 was given a SUPPLEMENT, which contains—Heat-Conducting Power of Alloys; Colliery Operations in the Newcastle District—No. II.; The Mineral Wealth and Commerce of Ecuador and the Amazonian District; Quarterly Sales of Copper Ores; Cornish Mining Maxims—No. XII.; St. Day United Mines; Plan of West Devon Consols, and Part of Devon Consols Mining Sets; Ottoman Railway Company Meeting; New Zealand; Geological Society of London; Tin in Greenland, &c.

\* \* \* With the MINING JOURNAL of March 26 was given a SUPPLEMENT, which contains—North Country v. Welsh Steam Coal—The Admiralty Report; New Method of Purifying Coal; New Almaden Mining Company; Household Words—No. III.; Plan of the West Devon Consols, and Part of Devon Great Consols Mining Sets; Spargo's New Map of Cornwall; Coal Miners' Grievances; Economic Life Assurance Society, &c., &c.

**EARLY PUBLICATION OF THE MINING JOURNAL.**—In compliance with the frequently expressed wish of many of our subscribers to receive the MINING JOURNAL on Saturday evening instead of Sunday morning, we have at length succeeded in completing our arrangements for publishing in time for the Saturday morning's mail. Henceforth the MINING JOURNAL may be obtained at our office at FIVE O'CLOCK A.M., or can be delivered by any Newsman in the metropolis with the morning papers.

## The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, April 21, 1859.

COPPER.	s. d.	BRASS.	Per lb.
Copper wire ..... p. lb. 0 1 2-0 1 2½		Sheets ..... 10½d.-11½d.	
ditto tubes ..... " 0 1 2½-0 1 3½		Wire ..... 1d. -	
Sheathing & bolts ....." 0 1 0½-0 1 1		Tubes ..... 13½d.-14d.	
Bottoms ..... " 0 1 1-0 1 1½			
Old (Exchange) ..... 0 11-0			
Best selected ..... p. ton 115 10 0-			
Tough cake ..... 112 10 0-			
Title ..... 112 10 0-			
South American ..... 105 0-0 107 0 0			
IRON.	Per Ton.		
Bars, Welsh in London. .... 7 5 0-			
Ditto, to arrive ..... 6 15 0-			
Nail rods ..... 7 10 0-			
" Stafford, in London. .... 8 0 0-9 0 0			
Bars ..... ditto 8 5 0-9 10 0			
Hoops ..... ditto 9 0 0-9 15 0			
Sheets, single ..... 9 10-0 10 10 0			
Pig, No. 1, in Wales. .... 3 15 0-4 18 0			
Refined metal, ditto. .... 4 10 0-5 5 0			
Bars, common, ditto. .... 6 0 0-6 5 0			
Ditto, railway ditto. .... 6 5 0-6 10 0			
Ditto, Swed. in London. .... 13 10 0-16 0 0			
Stock to arrive. .... 12 5 0-			
2 11 6-2 13 0			
Ditto, in Tyne & Tees. .... 2 14 0-2 15 0			
Ditto, forge. .... 2 17 6-			
Staffordshire Forge Pig. .... 3 10 0-3 12 6			
Welsh Forge Pig. .... none			
LEAD.	Per Ton.		
English Pig ..... 22 15 0-23 0 0			
Ditto sheet ..... 23 10 0-23 15 0			
Ditto red lead ..... 24 0 0-			
Ditto white ..... 30 0 0-			
Ditto patent shot ..... 26 0 0-			
Spanish ..... 23 5 0-22 10 0			
American ..... none			
At the works, ls. to ls. 6d. per box less.			

REMARKS.—In metals scarcely any change has taken place, and the market keeps tolerably steady, at former quotations.

**COPPER.**—Another advance in the standard has imparted greater confidence to buyers, and prices are not looked upon with such distrust as they were two or three weeks since; nevertheless, the demand is still of a very limited character, especially for shipment to the East. The rise in the price of common ore is principally owing to its scarcity. The next sale of ores at Swansea takes place on May 3, and should the standard go much higher there will probably be an alteration in fixed rates.

**IRON.**—Although we cannot report a general improvement, yet there have been some good orders given out, which will enable sellers to uphold prices with greater firmness. Welsh bars in Liverpool, of good quality, are selling at 6d. 10s. to 6d. 12s. 6d., and in London 1d. 15s. to 7d. per ton. Staffordshire, of fair ordinary quality, 8d. f.o.b. in London; best description of bars at 8d. 5s. to 8d. 15s. per ton. Swedes bars continue very dull; for arrival good specifications are offering at 12d. 5s. ex ship; Scotch pigs have been quoted at 5ls. to 5ls. 6d. m.n., cash, market closing sellers at the latter price.

**LEAD.**—No change is made in quotations, but sellers will slightly concur for orders of any magnitude.

**SPELTER.**—Importers are firm, and have mostly declined contracts under 22d.; several lots lately have arrived, which were bought some time previous to arrival, and have rather pressed upon the market, and a few sales have been made at 21d. 10s. As soon as most of these parcels are cleared off, and providing the market in Hamburg is sustained, higher prices will doubtless be required.

**TIN.**—There is a fair business doing in English at last week's rates. Foreign has been neglected, and prices nominal. Banca about 135l.; Strafford, 12d. 10s. to 13d. 10s.; Tamar, 12s. 6d. to 13s. 6d.; Tincroft, 4½ to 4½; Tolcarne, 15s. to 16s.; Toddbrook not so firm at 8d. to 8s. Trewetha have again fluctuated, and leave off 19s. to 21s. Vale of Towy, 10s. to 11s. West Darns. shares have advanced to 80, 85; the lode in the shaft is looking well, yielding about 7 tons per fm. West Frances, 11 to 13; West Seton, 400 to 410; West Stray Park, 5½ to 6; here the lode has improved in the shaft. Wheal Edward, 2d. to 3; Wheal Ludocet, 3 to 3½; Wheal Seton in request at 150 to 160; Wheal Wrey, 3d. to 3½; Great South Tolgus, 13 to 14; at the meeting a dividend of 5s. per share was declared. East Trefusis, 5 to 5½; a call of 10s. per share has been made here. Crowlawn, 30s., and prospects very favourably reported upon. North Grambler, 4 to 5, and mine looking better. Bedford,

an average produce of 20, and sold at an average standard of 109*l.* 2s. 6d. = 21*l.* 15s. per ton of ore.—On May 3, 1858 tons of one of the following descriptions will be sold:—Cobre, Wheal Maria, Great Barrier, Estrella, Knockmahon, Namaqua, Spanish, San Filips, Rivero, Chambers Mine, Aquiles, San Blas, Copper Slag, Australian, California, Bampfylde, Bilboa.

At Truro Ticketing, on Thursday, 4359 tons of ore were sold, realising 25,710*l.* 12s. 0d. The particulars of the sale were—Average standard, 146*l.* 2s.; average produce, 5*l*; average price per ton, 5*l.* 17s. 6d.; quantity of fine copper, 258 tons. The following are the particulars:

Date.	Tons.	Standard.	Produces.	Price per ton.	Ore copper.
March 24	3162	'£142	2	6 <i>l</i> 6 <i>s</i>	£298.14
" 31	4464	139	10	7	0
" 31	4386	149	11	6 <i>l</i> 4 <i>s</i>	100 <i>l</i> 3 <i>s</i>
" 21	4359	146	2	5 <i>l</i> 17 <i>s</i> 6 <i>d</i>	99 <i>l</i> 4 <i>s</i>

Compared with last week's sale, the advance has been in the standard 1*l.* 2*s*. 9*d*., and in the price per ton of ore about 1*l.* 5*s*. Compared with the corresponding sale last month the advance has been in the standard 2*l.* 2*s*. 6*d*., and in the price per ton of ore about 2*l.* 6*s*.

Messrs. Hastings, Andrew, and Co., Liverpool, sampled, on Wednesday, 22 tons of copper ore, ex *Amanda*, from Marseilles; and 28 tons ditto, ex *Misrah*, from Leghorn. Tenders will be received on May 9.

At Wheal Seton meeting, on April 11, the accounts showed—Balance last audit, 1263*l.* 1*s*. 9*d*; copper ore sold (less dues), 2211*l.* 1*s*. 9*d*; the sold (less dues), 286*l.* 2*s*. 1*d*; sundries, 21*l.* 9*s*. 9*d*; = 3765*l.* 3*s*. 3*d*.—Mine cost, Jan., 903*l.*; ditto Feb., 602*l.* 4*s*. 7*d*; merchants' bills, 392*l.* 16*s*. 4*d*.; leaving credit balance, 1866*l.* 1*s*. 10*d*. A dividend of 5*l* per share was declared, and a balance of 1272*l.* 1*s*. 10*d*. carried to the credit of next account.

At the Botallack Mine meeting, on April 19, the accounts showed—Balance last audit, 2063*l.* 1*s*. 8*d*; copper ore sold (less dues), 53*l.* 17*s*. 5*d*; the sold (less dues), 88*l.* 1*s*. 1*d*; 2037*l.* 9*s*. 7*d*; = 3765*l.* 3*s*. 3*d*.—Mine cost, 1738*l.* 1*s*. 9*d*; carriage, 124*l.* 8*s*. 6*d*; coal, 92*l.* 9*s*. 9*d*; merchants' bills, 423*l.* 0*s*. 3*d*.; leaving credit balance, 2637*l.* 9*s*. 6*d*. There was a profit of 524*l.* 7*s*. 10*d*. A dividend of 6*l* per share was declared, and a balance of 2137*l.* 9*s*. 6*d*. carried to the credit of next account. Captains N. Hocking, H. Boyne, and J. Howe reported that the mine had improved since last account.

At Great South Tolpuke Mine meeting, on Tuesday (Mr. W. A. Thomas in the chair), the accounts showed—Balance last audit, 2337*l.* 9*s*. 8*d*; stores sold, 15*l*; copper sold, Jan., 1398*l.* 1*s*. 9*d*; timsoil, Jan., 3*l*. 1*s*. 9*d*; ditto, April, 100*l.*; copper, February, 1931*l.* 1*s*. 1*d*; advance on tribute, 100*l.* = 5911*l.* 1*s*. 2*d*.—Dividend, Feb., 2100*l.*; mine cost, merchants' bills, &c., Jan., 812*l.* 16*s*. 9*d*; royalty, 652*l.* 7*s*. 6*d*; mine cost, &c., Feb., 608*l.* 1*s*. 4*d*; advances on tribute, 100*l.*; sundries, 20*l.* 5*s*. 9*d*.; leaving credit balance, 1617*l.* 7*s*. 11*d*. ORE bills, due May 10 and June 7, 1066*l.* 6*s*. 8*d*. A dividend of 1500*l.* (5*l* per share) was declared, and a balance of 1117*l.* 7*s*. 11*d*. carried to the credit of next account. Capt. John Daw reported that the chief features in the mine, as compared with that of two months since, were the improvement in the 70 fm. level, the 80 fm. level was 25 fathoms, and the 60 fm. level 15 fathoms behind the 70 est. Improvement was expected at each of these points as ground was opened. A lode had been discovered in the 70 cross-cut, but some time must elapse before anything satisfactory could be reported thereon.

At Great Wheal Alfred meeting, on Wednesday (Mr. T. Field in the chair), the accounts showed—Balance last audit, 2337*l.* 9*s*. 8*d*; stores sold, 15*l*; copper sold, Jan., 1398*l.* 1*s*. 9*d*; timsoil, Jan., 3*l*. 1*s*. 9*d*; ditto, April, 100*l.*; copper, February, 1931*l.* 1*s*. 1*d*; advance on tribute, 100*l.* = 5911*l.* 1*s*. 2*d*.—Dividend, Feb., 2100*l.*; mine cost, merchants' bills, &c., Jan., 812*l.* 16*s*. 9*d*; royalty, 652*l.* 7*s*. 6*d*; mine cost, &c., Feb., 608*l.* 1*s*. 4*d*; advances on tribute, 100*l.*; sundries, 20*l.* 5*s*. 9*d*.; leaving credit balance, 1617*l.* 7*s*. 11*d*. ORE bills, due May 10 and June 7, 1066*l.* 6*s*. 8*d*. A dividend of 1500*l.* (5*l* per share) was declared, and a balance of 1117*l.* 7*s*. 11*d*. carried to the credit of next account. Capt. John Daw reported that the chief features in the mine, as compared with that of two months since, were the improvement in the 70 fm. level, the 80 fm. level was 25 fathoms, and the 60 fm. level 15 fathoms behind the 70 est. Improvement was expected at each of these points as ground was opened. A lode had been discovered in the 70 cross-cut, but some time must elapse before anything satisfactory could be reported thereon.

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### Notices to Correspondents.

\*\* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filled on receipt: it then forms an accumulating useful work of reference.

\* Any reader having copies of the *Mining Journal* for Jan. 1, 8, 29, Feb. 12, and March 19, which he does not require, will oblige by forwarding them to our office. They shall either be sold, or papers of other dates forwarded.

**IRON MANUFACTURE IN IRELAND—PEAT FUEL.**—I had anticipated seeing the announcement of the Patent Vegetable Fuel Smelting Company in your last Journal, more especially as it is an enterprise in every way worthy of support, and one, too, the development of which must give employment to a large number of hands. Being an old shareholder in the Irish Peat Company, I can testify to the excellent quality of iron produced in Ireland, if the samples brought from the works at Athy can be taken as any criterion, and I have every reason to believe that it was a fair specimen. If the Patent Vegetable Fuel Smelting Company were to take measures to make the prospects of the undertaking known in the London market, the requisite capital would be speedily obtained, and Irish wrought-iron might again become a commercial article.

To guard against the exhaustion of the vegetable fuel, however, I would suggest that it be used only for refining and puddling, imported coal being employed in the less important operation of smelting the ore.—H. H.: *Chelsea, April 18.*

**IRON MINES, GROSMONT.**—Believing you have no wish that your widely circulated Journal should be made the vehicle for the propagation of untrue statements, I am induced to write you to say the information that has reached you through your Whitby correspondent, and published in your last impression, with reference to the shipments from Mrs. Clark's mines is not correct. So far from our shipments having fallen off, they have for the first quarter of 1859 been in excess of any previous corresponding quarter since the establishment of these works, nearly 20 years ago. I should have treated that statement with that silent indifference it so justly merits, were it not that its publicity, by conveying a wrong impression at the present moment, is calculated to do much injury to the district.—JOS. BERRICK, Manager: *Grosmont, April 19.*

**DEVON GREAT ELIZABETH.**—A rumour has obtained a degree of credence that some of the officers of this company have so trafficked in its shares that their *ad valorem* value has thereby been injuriously affected in the market. As rumours so "off run wild," it is desirable, if there be no foundation for them, that a direct negative should at once be officially given, which would dispel much of the unpleasantry which unhappily abounds.—Q.

**GENERAL PATENT COMPANY.**—In your last Journal I saw an announcement of a company with this title, but do not precisely comprehend what object is to be gained by it, nor who is to be benefited. Does the company intend to aid the needy inventor in obtaining the capital necessary for developing his invention, or is it simply a company of patent agents? I can scarcely think that it is the former, as a capital of 50,000*£* would be totally inadequate; and I am equally sure that such men as Fairbairn and Powell would not connect themselves with a concern of the latter description. I am fully convinced that an association for aiding inventors would find plenty of business; and I, therefore, trust that the General Patent Company will publish, through your Journal, more precise details as to the course they intend to adopt.—AN INVESTOR.

**TANY CONSOLS.**—I have not yet seen any answer to an enquiry recently made in the Journal, as to whether the authority of occupation has been lodged in the hands of the committee? As this is an enterprise with, at least, fair prospects, it is of the utmost importance that this matter should be cleared up. In the event of a discovery an unfortunate disputation might arise, and absorb the accruing profits that would otherwise be divisible among the proprietaries. If, therefore, any of your readers can afford satisfactory explanation, it would be gladly accepted by many of the adventurers.—S.

**SITNEY WHEAL BULLER.**—As there are many conflicting statements abroad respecting the position of this company, as connected with the Great Wheal Vor, if this Notice should prove the means of eliciting authentic information, such would be gladly accepted, not only by some Sitney Wheal Buller adventurers but also by many interested in the Great Wheal Vor. True it is that the original compact with regard to the relative position of these companies was, indeed, likely to lead to "cross purposes"; yet, as no present nor eventual benefit can possibly accrue from the continuance of this protracted difference, it were better for each party that the matter be, by concession or otherwise, amicably adjusted. The chief cause of complaint seems to be that the Great Wheal Vor has used the engine of Sitney Wheal Buller, for which convenience the latter has received an aggregate sum of 10,000*£*, besides possessing the advantages of the engine for its own purposes; so that while Great Wheal Vor has more than paid for the purchase of the engine, Sitney Wheal Buller has, at the same time, reaped the advantage of its working. Besides which, had the rods been disconnected, Sitney Wheal Buller would have been ruined by the influx of water. As, however, Messrs. Harvey and Co. have received orders to construct with all possible speed an engine at Wheal Metal, this complaint will soon be dissipated. Another allegation is that Sitney Wheal Buller has not been fully developed, its adventurers contending that the only chance of success remaining is to sink the shaft. In order the more quickly to dispel this grievance, according to your report last week, it is stated that the Chairman of Great Wheal Vor has conceded this point, and consonant therewith a resolution was passed that the chief captain (Capt. Gill) be instructed to place, if practicable, another pair of men in the shaft for the purpose of sinking. If any explanation would lead to the settlement of this injurious difference, the interests of each party would be materially enhanced.—E. B.

**MANUFACTURE OF ALUMINIUM.**—Some weeks since we were told that we were to have aluminium at a few shillings per pound, yet I see nothing further published on the subject. Surely the gentleman whose process was referred to in the recent paper read at the Society of Arts has not discovered that he had deluded himself as to the price at which the new metal can be produced. Presuming, however, that the price were under 10s. per pound, may I ask to what purpose any large quantity could be applied, and where a market would be found for it? I am aware that the so-called aluminium articles manufactured at Paris were much admired; but as the bath in which they were treated was found on analysis to contain no metal but silver, we can scarcely consider that a fair proof of the value of aluminium. Perhaps Mr. Gerhard can give us some information on the subject.—D. F. A.

**WHEAL HENNEAH IRON MINE.**—<sup>"A Miner"</sup> should attend the next meeting, ascertain the necessary particulars, and cause their publication. We could not insert his letter without the writer's name being attached.

**CARADON AND SLADE.**—<sup>"H. R. M."</sup> can ascertain the exact position of this mine by referring to a map of the district; or he can obtain the particulars by writing to the secretary.

**ACADIAN CHARCOAL IRON COMPANY.**—An enquiry was recently made in your Journal, as to whether or not the arbitration between this company and the Government was still pending; and if not, what was the issue? Perhaps you will allow me to state that I have heard that the arbitration has been at least temporarily suspended, in consequence of the respective arbiters being unable to agree upon certain scientific points; whch being the case, a gentleman of scientific eminence was forthwith despatched to Nova Scotia, for the purpose of instituting certain enquiries, and at the same time, minutely examining the present condition of the company's works, the result of which will be submitted to the meeting to be held on May 17. It is alleged that the disagreement arose from the fact of the Government arbitrator stating that in consequence of the company's iron containing too much silica it was unfit for the purposes of the Government contract.—A. : *Sheffield.*

**DALE MINING COMPANY.**—This company having acknowledged its right to pay for the New York engine, on the promise that the original promoters of the mine would make some liberal concession, may I ask whether Messrs. Pemberton and Johnson have yet notified to the company the amount remitted upon the engine account?—S. : *City.*

**HALVANS.**—I see in your Journal of the 16th inst. a copy, word for word (except the initials "J. R." and address), of my advertisement for halvans or refuse ore, which appeared the week previously. Allow me to state, through the medium of your Journal, that I know nothing of the party who has made use of my advertisement.—J. H. : *College-hill Cottage, Jersey, April 19.*

**PORT PHILLIP AND COLONIAL GOLD COMPANY.**—Are the existing arrangements between this and the Clunes Company preserved intact?—that is, does the Port Phillip Company derive any advantage from the quantity of quartz raised further than a percentage upon the quantity crushed; and, if not, in the event of the material diminishing below 50 tons per day, does the Port Phillip Company suffer in proportion thereto? If the arrangement is to crush not less than 50 tons per day, how stands the relative position of the companies? If there be not that quantity of material raised? Although there may not be a remote probability of this unfortunate eventuality occurring, it would be satisfactory to ascertain if this has been provided for in the existing arrangements.—L. : *Oxford.*

**HOW TO ENSEUR SUCCESS IN MINING.**—A "Sufferer" should write to Capt. Chas. Thomas, Dolcoath, Camborne. We cannot furnish the information he requires.

**WEAL SAMSON.**—In your report last week it is stated that the meeting determined upon abandoning any further law proceedings; and the shareholders, unwilling to furnish any more funds for the purpose of carrying on the mine, resolved upon assigning the lease to Mr. F. S. Thomas, the lessee. Mention is also made of considerable sums of money having been lent to the directors upon the security of the lease, which had, with other documents, been lodged in the hands of the lenders; but the relative value of the lease, as compared with the advances made thereon, is not stated. And as no material guarantee will be given to the present lessors, save the bare *ipso dictu* of the lessee, "that he will do what he can for the present proprietary," this is a point which most certainly should have been adjusted for the satisfaction of all interested, the more especially as there can be no doubt that a new company will be established, and the mine probably successfully proved at a comparatively small outlay. It has been said that those by whom the advances were made are at the present time shareholders in the enterprise. If such be the case, may I be permitted to ask them what is the present financial condition of the company, and whether it is probable a call will be made to disburse any of the undischarged liabilities?—R. : *City.*

**ST. IVES CONSOLS.**—I see, in your last Journal, a notice that St. Ives Consols is the "most productive mine in the county, being worked at 6d. in H." I should like this to be explained, as the mines are not the most productive, and I cannot think that 19s. 6d. out of every 20s. worth sold is profit.—M. S. : *St. Ives, April 20.*

**NORTH BULLER MINE.**—I am pleased to see this mine noticed in your valuable Journal.

The remarks of "J. G." (Redruth) are quite true, and I believe before the 65 and 75 fm. levels have been driven 10 fms. further west a course of ore will be cut. The lode in the 65 end is in beautiful strata for making ore, and the 75 is producing rich stones of copper and jack. A few months will prove that the adventurers alone are to blame for not having a mine equal in value to East Basset.—J. C. : *Illogan.*

**GREAT CARADON AND SLADE MINING COMPANY.**—In your report of the meeting of this company Mr. Bennett is reported to have said: "That the actual price of the shares was above the amount named considerably, although some had been advertised lower; for instance, Mr. Bridg had advertised them for sale at 36s., and when he applied for them he could not obtain them, but received an offer to buy." I presume there must be some mistake in this report, because immediately after I had advertised to sell at 36s. per share for another client, Mr. Bennett gave me instructions to dispose of some for him even at a lower figure; and I made him no offer to buy shares of him at that time, as he stated at the meeting was the case.—G. BUDGE, *April 21.*

**CRADOCK MOOR.**—In the report last week the 72 west, on Verco's, is said to be worth 1/2 ton, and the 42 west, on Vivian's, improving, now worth 1/2 ton of ore per fm. Each of these ends should have been reported to be worth 1/2 ton of ore per fm.

**BORING AND WELL SINKING.**—It was asserted some months since that the Great Crinnis, or some mine in that locality, had adopted the very wise course of boring the ground before undertaking the more expensive process of sinking and driving; yet I have not seen the result published, nor do I hear of the experiment being repeated in other mines. Now, as I have no doubt that legitimate mining would be materially benefited by the general use of boring apparatus in exploratory operations, I would suggest that mine adventurers should turn their attention more particularly to the subject. I have heard Cornishmen express the opinion that it would prejudice the working miner, but this I strongly deny, as the only effect it could have would be to induce the working of more mines, and secure a larger profit to the adventurers. I come to this conclusion from the fact that although there might be difficulty in obtaining sufficient capital to test the value of a promising but unknown piece of ground in the ordinary way, the cost of boring would be so trifling that its prospects might be ascertained; and when the existence of workable lodes was thus proved, there would be ample capital forthcoming.

Districts now almost totally neglected might by this means be made to contribute to our mineral wealth; and although, perhaps, labour might become more scarce, and miners' wages higher in consequence, the adventurers would have no reason to regret the change. This would, indeed, place mining in a position far beyond that of speculative enterprise, at least in the opinion of—A WORKING MINER: *Favistock, April 20.*

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, APRIL 23, 1859.

The Health of our Mining Population is a problem which has again and again engaged the attention of thinking men. The results of long-continued observations, extended over several of our large mineral districts, by medical men connected with the mines, and from time to time by intelligent commissions appointed to enquire into the condition of our labouring classes, have been invariably the same sad tale of early dissolution.

PRICE, in his *Mineralogia*, and POLWHELE, in his *History of Cornwall*, both speak of the peculiar consumption of the Cornish miners. It must be remembered that when those writers lived the mines of Cornwall were not wrought to anything like the depth to which they now extend. In 1835, Dr. CARLYON referred the miner's disease almost entirely to climbing. "In order," he writes, "to judge of the extent of the heart's distress when the miner has ascended by ladders from a depth sometimes of more than 200 fms., he should be seen emerging from the shaft on his getting, as it is technically termed, *to grass*, his heart beating as if ready to burst, his whole frame bedewed with sweat, and his strength ready to pass from the extreme of feverish excitement into the opposite state of perilous exhaustion."

Mr. LANTON, of Camborne, in 1836, dealing with this subject, gave a very interesting statement of the life duration of 240 miners and 120 agricultural labourers. These being brought to the same terms give the following results:—

Miners. Agricultural labourers.

Above 30 years of age..... 172 ..... 196

" 40 ..... 94 ..... 136

" 45 ..... 57 ..... 126

" 50 ..... 29 ..... 114

" 55 ..... 17 ..... 96

" 60 ..... 8 ..... 70

" 65 ..... 2 ..... 54

" 70 ..... none ..... 28

" 75 ..... none ..... 8

Such is the melancholy information which statistical science reveals to us. Two hundred and forty men of equal strength start on the race of life together, and before 40 years are numbered from their birth we have lost 146 of our brethren who have been called to labour in the mine, while only 104 of our agricultural brothers have perished; and if we examine the condition at the end of the next five years, the tale is yet more melancholy: of our 240 miners we shall have lost 211, while of the labourers of the soil 126 only have gone to their eternal rest. This takes place in a county of which CAREW wrote—"For health, 80 or 90 years of age is ordinary in every place, and in most persons accompanied with an able use of the body and its senses;" and of which GILBERT states—"Records of longevity are numerous, and so extraordinary, that it would be wrong to call a person 75 or 80 aged."

Dr. FORBES informs us that "he ascertained, by personal examination

of 120 Cornish miners in actual employment, that only 63 had good health. Of the remaining half, 26 had difficulty of breathing; 14 pain of chest; 10 pain of stomach and bowels; 5 lumbago, pain of shoulders, palpitation, scrofula, or fits."

In a subsequent essay, Mr. LANTON gives us the following valuable table, showing the ages of the men employed underground at some of the most important mines in our western mineral districts:—

Mines.	No. of men.	Average age.	Average time of working



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annual mortal impulse given to surface water when the pebble is cast in; a childish pastime in which almost every one has indulged.

The establishment of this fact at once deprives the great masses used in sea barrier construction of their ancient importance, inasmuch as the only service of the immense pyramid of stone breakwaters is to support the upper 30 ft. or so of it, which alone is exposed to the action of agitated water; while the necessity of proportioning its unyielding bulk to the storm power in the various latitudes imposed an expenditure of labour, material, and time almost incalculable. By Capt. SLEIGH's mode of barrier, and the other constructions already named, this great expense is obviated, while the uses of the block stone erections are fully and adequately secured. There is a very old proverb which is not inappropriate in illustrating the comparative qualities of stonework and those buoyant barriers, as it points to the fact that a certain degree of elasticity in anything opposed to the violent onrush or influx of the sea gives time to the water to waste its power gradually up to a certain point of its impelled course, when the resisting action of the barrier becomes more effective, causing a recession of the waves sufficient to protect shipping within its radius.

In a very ancient treatise on the theory and effect of storms on yielding and unyielding bodies, we remember to have read these quaint lines—

"In storms that sweep the world's way,  
The oak will break, the twig will bend,  
And the rush will live its day."

Now, the meaning in this doggerel conveys a truth applicable to the science by which the constructive efficiency of the harbours of refuge and artificial sea beach can be appreciated; and it is evident that in the sections before us, on a scale of 500 ft. each for harbourage, available at all times of tide, the buoyant, and, to a certain extent, lateral yielding nature of the material employed, will meet all that is necessary for protecting any given point from the action of the sea, and will be less likely than massive masonry to become deteriorated and injured by wind and water. It is not improbable that we shall in a little time give sketches of these constructions, of which now we can afford but a faint outline, and without which any literary description would fail to elucidate the principles upon which they have been so ably and ingeniously originated.

When such men as Lieut.-Gen. PASLEY, R.E., Gen. Sir W. REID, R.E., Admiral Sir THOMAS TROUBRIDGE, Bart., Gen. Sir HOWARD ELPHINSTONE, R.E., Admiral Sir E. CORBRIDGE, G.C.B., M.P., Mr. W. FAIRBAKIN, C.E., Naval Architect, and a host of others, well known not only to the British public but to the whole scientific world, give their adhesion to and approve a system we may well feel confidence in it; and it would be a dereliction of duty not to put it prominently forward, and at the same time subject it, in view of support, to the scrutiny and calm consideration of the public at large. Real worth will always have its weight, and who can doubt its being liberally appreciated when it is placed fairly before the intelligence of this country.

On the subject of combining the harbours of refuge, sea-barriers, and artificial breakers, with the military defences of the coast, we shall devote more space on a future day in the columns of this Journal, not only on account of its national importance, but of its commercial bearing on the iron interest in the event of the project being fully carried out. Estimates of great interest in naval architecture will also be furnished; and upon its general merits alone we shall continue to support the enterprise.

If assertion were proof of infallibility, the prospectus issued by the NATIONAL FLAX COMPANY would be a sufficient guarantee to the public for the successful working of the machinery invented by Mr. G. A. CATOR for the rapid and economical preparation of the Flax Fibre, but, happily, there are not wanting those acceptable and legitimate evidences of efficiency which the English public most justly require wherein to found its judgments, and by which it regulates its support. The time is now fortunately past when empiricism in trade and commerce could succeed. Bubbles blown to catch the eye of the public for mere purposes of private aggrandisement soon burst in the present atmosphere of our markets, and the application of patents to manufacturing purposes must have been well tested before any association of men of standing in society would, in regarding their names in the direction of a company formed to carry out such details, formally attest their conviction of their value and their knowledge of their operations. It would seem that the patent in question has been passed through the required ordeal and has come forth triumphant, and that it now only remains to adopt it upon a large scale to the prompt preparation of flax for the home market. Our home demand for this material far, very far, exceeds the demand, and it is one of the most notable examples of the difficulty of eradicating long-rooted prejudices that the farmers of this country, generally speaking a speculative and intelligent class of men, have been so slow to acknowledge the fact that the modern cultivation of flax has not been found, and really is not, deteriorative to the land. To this point we shall hereafter direct our observations, for the present reference is restricted to the mechanical efficiency of the power stated to be available.

The matter stands simply thus—the present mode of dressing and preparing flax fibre for market is allowed on all sides to be defective, and an important medium of operating upon it, one which will save time and labour, and enhance the quality of the article, is offered to the country; its value guaranteed by scientific and practical experience, and its preliminary proofs endorsed by an English engineer of considerable eminence. A very interesting pamphlet has been published touching upon the cultivation and preparation of this product, and the prospectus bears upon its face a mass of general information and most valuable trade statistics.

To both the prospectus and pamphlet of the National Flax Company we would invite the attention particularly of the commercial and agricultural interests. Intending to recur to this important subject more *in extenso*, we merely notice at the present moment a few of its leading merits.

The continuous advance in the price of metals, and consequent demand for ores, causes considerable animation to be displayed in developing our mineral resources; this too, in face of political circumstances, is usually highly injurious to anything bearing a speculative character.

It is but a few years since British Mining has been brought prominently before the public in its true character, or has had its vast importance laid distinctly before capitalists as a legitimate investment; and even in the dawn of its being so introduced, we must in all fairness admit the conduct of some of its supporters and promoters was anything but calculated to make a favourable impression and retain permanent hold on society.

Up to the period alluded to mining enterprise was confined to a few persons resident in the immediate localities of the mines, who, if they realised a competence by a small outlay, contented themselves with their good fortune, the slightest reverse of which, or the smallest falling off in the produce of the mines, caused their immediate abandonment, without the least perseverance, lest what had been gained should be lost.

At that time it had not assumed anything like the magnitude and consequence it has now attained. The vast demands made upon the miner for his produce, consequent on the improvement in the domestic comforts of mankind by continued peace and modern civilisation, have completely revolutionised the miner's business, which, instead of being limited to a few exceptional spots of the kingdom, is now sought in every part, and prosecuted wherever congenial strata are to be discovered. To carry out these purposes capital has been required to a greater extent than mere local funds could supply; hence the frequent appeals to the public for means to carry out these enterprises.

It is but too true that the unwary have been frequently deceived by the precious invitations and glowing representations made to them of unheard-of unlimited wealth to be obtained by speculations of this nature; but in many instances the parties deceived have to thank themselves—for want of due caution in the selection first of the mines, and next of the parties with whom they associate themselves, and to whom they confide their money: were they to use the same precaution and take the same heed in these as in other transactions, they would be equally secure.

Our Journal for the past few weeks has contained a more than ordinary number of prospectuses of new mine companies being in the field, each urging a varied and special claim to public favour and support. That they are required the statement at the head of this article unanswerably demonstrates, for an undue advance in the price of metals, as of any other article, leads to serious inconvenience on the part of the consumer, and must inevitably militate against the national prosperity. If supply and demand, as regulating each other, be the true logic of commerce, then the position of the new companies is perfectly legitimate and desirable. In this point of view we are disposed to consider them; and in doing so we not only found our premises on what we have stated, but also on the very great strides made in the sciences of metallurgy and mining themselves, which are as much advanced in their methods of working as the majority of other arts

and sciences of a kindred nature. They are still continually improving, as is also the demand that their greatest efforts be exercised.

The execution of the works at the various scenes of action are now confined to men of a very different stamp to those who a few years since held the management. The surveillance of the press, the force of public opinion, and the facility of communication all tend to, and indeed do, practice a powerful influence against anything like chicanery or deception: "they who would be guilty dare not." The Legislature, too, has thrown an *egis* of protection not before accorded. It is no wonder, then, that so great a demand exists for new undertakings, and that those which are brought forward in a proper manner and under properly constituted staffs of patrons and managers find so ready and so ample support.

In making these remarks we must not be misunderstood to say any wild mania exists, or is likely to be created, by which indiscriminate Utopian schemes will meet with favour, or that bubble companies can be foisted on the unwary by persons without character or standing, whose properties consist principally of a stock of assurance and self-confidence. We verily believe there never was a time when more caution was exercised, or when really genuine, sterling, and honestly purposed undertakings met a more liberal or sound support.

We cannot but claim some credit to ourselves for this satisfactory state of mining affairs. Our columns have been continually open to investigating and correcting any contradictory statements. At the same time that we ardently support legitimate mining, we shall always be found the unflinching enemies and exposers of anything approaching fraud or deception.

We have the proud satisfaction of announcing a period of prosperity and returning confidence we had long heralded, and express our conviction that it will be as lasting and as sound as can be desired by the most sanguine and interested.

Some months ago we presented our readers with a report of the case of HART v. CLARKE, in which it was held that the shares of an adventurer in a Cost-Book Company were not legally forfeited, because the rules did not contain a specific power to forfeit. The directors in that case had, without power to forfeit, declared the shares to be forfeited for non-payment of calls whilst the mine was in a hopeless position; but after the lapse of three years, when riches were cut, HART contested the right to forfeit, and the House of Lords held that the forfeiture was invalid, and that he was entitled to participate in the profits of the mine.

Bearing the above decision in mind, we beg now to draw attention to the case of ex parte BARTON in re THE NATIONAL PATENT STEAM FUEL COMPANY, which was an appeal to the Lords Justices from the decision of Vice-Chancellor KINDESSLER. The facts of the case were as follows:

Mr. BARTON, the appellant, in June, 1852, applied for 100 shares in the above company, and received on July 8 following a letter of allotment of that number of shares, and paid into the bankers of the company a deposit of £100, in respect of the same, and on the 17th the receipt for the money was exchanged for scrip certificates. On Sept. 1 following the company was completely registered, and in the same month the deed of settlement was executed by some of the shareholders. Mr. BARTON and others not having executed the deed, the directors advertised in the *Times*, *Daily News*, and *Mining Journal* (a copy of the advertisement being sent to each of the shareholders), that those who did not execute the deed before Monday, Nov. 21, would have their shares absolutely forfeited. In Dec. 1853, it was resolved at the annual meeting of the company that the question of forfeiture should be considered at a special meeting, to be held in April. That meeting was adjourned to May, and then it was resolved that forfeiture should take place of shares held by persons who did not execute the deed by May, 1854. In July in the last-named year the directors reported that a large number of shares had been forfeited. Mr. BARTON never executed the deed; he had sold his scrip shares before the declaration of forfeiture, and in March, 1855, an order was made for winding-up the company. It appeared that the deed did not contain any clause empowering the directors to forfeit any shares except those which might be transferred, and the transferees reflected to comply with the requisitions of the deed.—Vice-Chancellor KINDESSLER held that Mr. BARTON not having executed the deed which he had contracted to do, and the directors having the power to forfeit the shares which they had affected to do, he was not discharged from his liability, and must be placed on the list of contributories in respect of 100 shares. From this decision he appealed.

Lord Justice KNIGHT BACKE, in giving judgment, said he considered that the declaration of forfeiture was without authority, and, therefore, ineffectual; still, had there been on Mr. BARTON's part, or on the part of the owner of his scrip shares, any submission or accession to the forfeiture, that fact might have been in his or their favour. The evidence, however, did not show such submission or accession, and the consequence was that Mr. BARTON must remain liable; but as the case was somewhat new, and not perfectly clear, Mr. BARTON would be excepted from costs in the dismissal of his appeal. The costs of the official manager to come out of the estate.

Lord Justice TURNER added, that the directors being in the position of trustees for the shareholders, the fact that the contract with Mr. BARTON was executors would not extend their powers, although it might place them in a different position in case application were made to this Court for specific performance of the agreement to take the shares. The only question was whether the directors had power to bind the shareholders by a contract to absolve Mr. BARTON. His lordship was of opinion that they had no such power, there being no proof of any assent on the part of the shareholders, as in MORGAN's case. The appeal would be dismissed; but with regard to the costs, he agreed with the direction of his learned brother.

The judgment of the Lords Justices is, no doubt, in strict logical accordance with the decision of HART v. CLARKE, that an illegal forfeiture does not affect the legal position of the parties whose shares are forfeited. There is, however, a notable distinction between the above cases as regards the effect of the decision upon the parties whose shares were forfeited. In the one, Mr. HART succeeded in setting aside the forfeiture made three years before, and in obtaining his share of the profits; in the other, the Court has set aside the forfeiture against Mr. BARTON's consent, and has made him liable to pay a contribution on his shares, although they had been improperly forfeited between four and five years previously. The current of legal authority is indeed uniform, but its effects upon the parties litigant are almost capricious.

## BEDFORD v. BAGSHAW.—COURT OF EXCHEQUER, APRIL 18.

This case was tried before the Lord Chief Baron at the sittings at Guildhall after last term, when a verdict was found for the plaintiff on the first count, and for the defendant on the second and third counts.

Mr. O'MALLEY now moved to set aside the verdict found for the plaintiff on the first count, and to enter it for the defendant, or for judgment *non obstante veredicto*.

This was an action against the defendant, as one of the directors of the Lake Bathurst Australasian Gold Mining Company, for an alleged false representation set out in one of the prospectuses of the company.—The Court granted a rule.

The defendant in the above case having obtained a rule *nisi*, the same will come on for argument, when the defendant will contend that the verdict was against evidence, and, if successfully, will have his rule made absolute for a new trial, or for judgment *non obstante veredicto*, which means that admitting the facts as found by the jury, yet that they disclose no case in law which makes defendant responsible to the plaintiff. If the Court are of opinion that the verdict was against evidence, a new trial will take place; if, on the other hand, they are of opinion the facts do not support a cause of action, defendant will be entitled to the verdict. If the Court refuses to make the rule absolute, then the verdict against defendant will stand.

## THE NEWCASTLE COAL TRADE—NORTHFLEET DOCKS.

The various indirect imposts to which coals, the staple commodity of the north-eastern ports, are exposed in their transit from the hold of the vessel to the premises of the consumer, and the prospect that some relief from these abuses may be afforded by the construction of the Northfleet Docks, have led to several town council and commercial meetings being recently convened at Newcastle, Shields, Gateshead, Sunderland, &c. It appears to be the prevailing opinion that the construction of the proposed docks cannot fail to prove highly beneficial to the coal and shipping interests of the above-mentioned localities, where resolutions have been passed in favour of supporting an undertaking which will afford such facilities to colliers, by moderate charges, and by the system of railways to be connected with the docks, as will permit of seaborne coal entering districts from which it has been hitherto excluded.

That important northern body, the Coal Trade Society—an institution in which is represented the "noble interests" of Durham, Northumberland, and Londonderry—has evinced a universal appreciation of the Northfleet Dock enterprise; a natural result, considering the immense traffic in the produce from the mines of mineral wealth which is carried on between the north-eastern ports and the Thames.

Our northern friends are not unreasonable in believing that, when along the quays of the Northfleet Docks weigh-bridges shall be established capable of weighing 50 or 100 tons of coal at once, the meter and his man—veiled like familiars of the Inquisition, black and grimy with coal dust, and pottering like the toothless crones in Macbeth, round a little basket of "Wallsend"—must depart into limbo with the things that were. When nearly a mile of quay, with 20 fathoms at low tide, and 35 fathoms at high water, shall be furnished with Sir W. Armstrong's hydraulic lifts, or with steam cranes, the voyager in the river steamers will miss the accustomed sight of swarthy coal-whippers climbing the treadmill of spars and handspikes, and jerking high into the air the little tub containing its modicum of coals, by which, with labour and pain, 50 tons per day can be discharged. The poor benighted, solitary mariner, guiding alone by two

long "sweeps," the ponderous barge floating up with the tide, through a labyrinth of oaths and curses, will betake himself to some less laborious mode of life. The lightermen—those horse dealers and jockeys of the flood—will follow some honest calling, and the publican will subsist by the sale of his beer, and not of the blood and sweat of his customers. The pilot, loved and respected for his name and office, will save some fellow-creatures from the perils of the deep, and not lead them into the perils of the law in default of paying some monstrous, needless charge for services unasked or undesired. The dangers of the inland navigation will subside to the level of those of the sea, when the crowded tiers of shipping which now encumber the "Pool" shall be safely housed under the chalk cliffs of Northfleet and Rossherville. The choking traffic of the river-side streets will be relieved of those interminable teams of horses, those coal-laden wagons, and those stolid carters, who form the plague of the police, and the terror of hasty travellers anxious to catch express trains, bound stationwards in cabs, when the North Kent and the Tilbury and Southend Railways can distribute seaborne coals to every external point of the metropolis; and, lastly, the traffic of an all-important industrial district—the coal fields of the North—will be conducted with the first commercial city in the world in a manner worthy of reasonable beings, and not pulled and hauled, and blundered through with an ignorance of the first principles of social science.

## MODES OF WORKING COAL.

At the School of Mines, Bristol, on Monday, a lecture on the different Modes of Working Coal was given by Mr. A. S. PALMER. This subject is one of such vast importance in the economy of collieries that a careful consideration of the merits or demerits of the respective modes or systems, and the various modifications thereof, is of great value to the student of practical mining, and one to which he must frequently turn his most deliberate attention.

Mr. PALMER described the leading or distinctive features of the pillar and stall and long wall systems of working, and gave by plans and black board illustrations a detailed description of the several varieties of the former system as practised in several of the most important colliery districts in the country. A plan of working practised in the Newcastle-upon-Tyne district was by two processes: by the first of these processes pillars of coal, 30 yards by 8 yards, were left standing, passages (bords) being driven about 4 yards wide at each side, and at each end passages (head-ways) about 2 yards wide. In the second process about 5 yards off each end of every alternate pillar were taken. By this plan of working 55 per cent. of coal was obtained, showing a loss of 45 per cent. Subsequently every alternate pillar was taken out, and half of the one left, in a bord-ways direction: by this means from 80 to 90 per cent. of the coal was obtained. Leaving narrow pillars of coal between narrow holed boards, 4 yards wide, was not noticed, a plan of working in connection with which the pillars are not worked out by a second process. The most approved mode of working in the North of England was by dividing the pit into prunels or districts, and working the coal in each, pannel by the two processes ("whole" and "broken") simultaneously.

Mr. Palmer described the varieties of pillar and stall system of working as practised in North Wales, Lancashire, Yorkshire, and Staffordshire, and concluded by saying—"The pillar and stall system of working is generally considered best adapted to a tender coal, or where the roof and floor are of soft broken rock. This is mostly the case in the Newcastle district, where large quantities of gas are found to issue from the strata. I have known cases where the effect of gas on the roof has been such as to necessitate very close timbering in a place 2 yards wide, whilst in a parallel passage only a few yards distant, but not so far advanced, one prop has been required. In some cases masses of coal have been moved out of their natural position by the tensile force of gas *in situ*. An instance of this was met with in the Walker Colliery, where 11 tons of coal were displaced. There are hardly two seams of a coal alike, and it is, therefore, impossible to lay down any rule which will not by local circumstances require to be departed from. I hope when you are called upon to take upon you the management of a colliery, you will not be too hasty in introducing any new plans of working without having well weighed the probable results of so doing: as by a failure there will not only be a great financial loss, but you will lose your reputation to some extent, and the confidence of the workmen in your abilities as a practical miner. You will often find a strong prejudice against anything new, but if, after having well weighed the effects of alterations, you are satisfied as to their advantage, you must not allow yourself to be defeated in defiance of your judgment."

## SOCIETY OF ARTS EXHIBITION.

The ordinary Annual Exhibition of recent discoveries will be opened at the Society of Arts, Adelphi, on Monday, and is this year more than usually interesting, owing to the decidedly more varied character of the articles exhibited. On former occasions there has been, apparently, a mania for some particular class of inventions, so that, except to those visitors more immediately connected with the fashionable industry, the whole affair must have appeared wanting in interest; but the present exhibition will, doubtless, satisfy all parties, since to whatever class he may belong he will find something which concerns him, and something by which he may profit. Indeed, from the general tone of the collection, it is evident that inventors now comprehend the advantages derivable from availing themselves of the opportunity offered by the Society of Arts for bringing their inventions prominently before those interested in them, and that they feel that the inspection of a working model will do more to prove the utility of a contrivance than all the verbal evidence which can be adduced.

Inventions relating to mining naturally claim our first attention, although most of the patented apparatus of this class have been already described in the *Mining Journal*. Foremost amongst these is a safety cage, introduced by Messrs. Barnes and Leach, of Birmingham, which, however, has been so carefully encased by the inventors, that the majority of visitors would pass the tin box without a moment thinking that a useful invention was enclosed in it—a stout glass tube would have removed this cause of complaint. The principle of the invention is, that the weight of the cage acts upon levers, which come in contact with the sides of the shaft, and support the cage in case the rope breaks. The advantage is that no guide rods are required. Close to this model are samples of safety-lamps by Mr. A. Sterry, of Swansea, and by Messrs. Wilkins and Co., of Long-acre, each of which have been described in the *Journal*—the latter so recently as December. Messrs. Wilkins' lamp is simple in construction, cheap, and gives a great quantity of light; it is, therefore, worthy the attention of all connected with colliery operations.

As usual, the exhibition is divided into classes, so that all inventions bearing upon one subject are found together. There being between 400 and 500 models exhibited, it is, of course, impossible even to mention each, but amongst the more attractive we may notice the following, and shall take another opportunity to detail others of general interest.

Messrs. Kaye, of Huddersfield, exhibit their picks, mattocks, and hammers, which were described in the *Journal* of Aug. 14 last, and of which we then expressed our opinion that they were vastly superior to those in general use. Major Talbot's self-detaching hook is likewise exhibited, and there is a beautifully finished model of Taylor's double-cylinder steam winch. Professor Hughes has two of his patent Roman type printing telegraphs in practical use, so that the visitors may have every opportunity of testing their simplicity and efficiency; the rapidity with which the message can be transmitted is superior to that of the needle instrument, whilst the chances of error are not so great as in printing with ordinary type, and a misprint would be readily corrected by the receiving clerk. Mr. Boyd has three inventions which, although very different in their character, are each equally useful for the purpose intended. The first is a lawn-mowing and rolling-machine, manufactured by Messrs. B. Samuels and Co., of Banbury: the improvements introduced by Mr. Boyd, consisting in an arrangement of brushes so placed that the knives are continually kept clean, and a series of cog-wheels, by which the knives are raised and lowered with such facility that the grass may be cut to any desired length, the adjustment being easy to the most inexperienced person; the machine rolls at the same time the whole of the grass cut, and has, we understand, already been extensively adopted. In Boyd's Economic Cauldstick, instead of the usual socket, a ring supported on standards is employed to keep the candle in position until it is nearly exhausted, when, by lowering the standards, the candle-end remains upon what is in every sense a savall. The third invention, by the same gentleman, relates to improvements in taps: one tap showing by the application of a

gauge-glass and index the quantity of liquid contained in the barrel, and the other, by the elongation of that portion of the tap which passes into the barrel to form the short arm of the siphon, and of the nozzle to form the long arm. The last drop of liquid may be drawn off without tilting.

#### THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL. [FROM OUR CORRESPONDENT IN WEST CORNWALL.]

APRIL 20.—Although electioneering is in progress, it has not so much disturbed and interrupted operations in the mining market as it has done on some previous occasions. This is owing to the fact that there is no contest in Cornwall for county members. The same members for East and West Cornwall as sit in the present Parliament will be re-elected for the next without opposition. Whenever there has been a contest for the county, in East or West Cornwall, it has put a stop for the time to mine share dealing to a very great extent; but as Redruth and Camborne are not boroughs, and the contests at this election in Cornwall are confined to the boroughs, it follows that mining business, in its most active district, is still carried forward. It is, perhaps, to be regretted, on the part of the mining interest, that there is no opposition to Mr. Kendall, in East Cornwall, seeing that he took so active and prominent a part in promoting the mischievous measure for the rating of mines, and that in all probability, as soon as he has the opportunity, he will again bring it before the House of Commons. As a man of business he is not to be objected to, being more active and energetic than the majority of parliamentary members, but his peculiar crotchet in reference to the rating of mines must always make him obnoxious to the major part of the mining community. Let us hope that he and others may see reason to alter their views on this question, and to admit that there are peculiarities connected with the mining industry which strongly claim for it exemption from rating.

At all the Cornish boroughs, except one (Launceston), there will be very severe contests, and the result is at present uncertain in almost every case, so divided and mingled are parties and interests at the present time. Most of the readers of the Journal, however, being men of business, will sympathise with people of their own class and pursuits, and wish them success in their endeavours to enter Parliament, where the number of practical business men is not so large as it should be in proportion to the scions of aristocratic houses, the country squirearchy, barristers, attorneys, &c., who seek to get into Parliament more for personal advancement than for the advancement of the welfare of the nation. If the various branches of industry in the kingdom were more fully represented in the House of Commons we might confidently expect an improved management of the national affairs; but as long as the landed interest can keep out such men, they will not fail to use their utmost efforts for that purpose. The mining interest especially, although now so great and important a part of the national industry, is very far from being represented as it should be in the House of Commons; but it is hoped that before long we shall have an improvement in this state of things. The Cornish papers last week contained an address from Mr. Giesler, offering himself to the electors of St. Ives as their representative. Mr. Giesler is a large shareholder in mines, and a thorough man of business. He says: "In my frequent and sometimes lengthened visits to the county I have become well acquainted with its various interests and requirements;" and he expresses his desire to help forward the local interests of the port, as well as the shipping, fishing, and mining interests of the county. These are the sort of men we want more of in Parliament—men of business, who can comprehend the real wants of the country, and have acquired business, skill, and tact in the management of their own affairs. Mr. Murchison has also issued an address to the electors of Truro. He is another man of business habits and practical intelligence, and long associated with the mining interest; but he is too late in the field to expect success.

The advance in the price of Tin last week has given increased firmness to the shares in tin mines, with one or two exceptions where they had previously gone very high. Dolcoath shares are firm, and the mine continues to look well. On the north part of the main lode, the end of the 254 west is worth 80*l.* per fathom, and the same level east is worth 100*l.* per fathom. The 242 west is worth 90*l.* per fathom. The whole of the ends in the mine are worth 396*l.* per fathom, besides winzes and shafts. Wheal Clifford has lately improved, and the shares have reached 400*l.*, and will probably go higher, as the dividends will, to all present appearances, rapidly increase. At Great South Tolzus, there is a fine lode in the 70, worth 50*l.* per fathom. South Tolzus has some very good stopes in the backs of the 100 and 110 fathom levels. St. Day United is increasing in produce of copper ore; and some of the tin stopes are also very productive. A very encouraging report is given of Wheal Grenville, and the mine is attracting increased attention. Copper Hill is looking more promising than for some time past. At Condurrow, the lode in the shaft is looking better, and improvements are expected at different points, especially in the 130 east. South Frances shares have been somewhat firmer. West Setons have gone up to 400*l.* per share; the mine is very rich at several points. The 110 west is worth 120*l.* per fathom. In the back of the 100 west there are three stopes, worth 180*l.* per fathom. Wheal Bassett shares are from 190*l.* to 195*l.* West Damsels have been in request, and difficult to obtain.

#### REPORT FROM MONMOUTHSHIRE AND SOUTH WALES. [FROM OUR CORRESPONDENT IN SOUTH WALES.]

APRIL 21.—A steady trade is now being transacted throughout the district, most of the large works being full of orders. It was feared that the election would interfere with the home demand for a little time, but no unfavourable effect has yet been produced. We stated a couple of weeks ago that it was thought a large ironmaster would contest the Monmouthshire boroughs with Mr. Crawshay Bailey, but it is now known that he will decline to do so, and Mr. Bailey will hold undisputed possession of his seat. This source of alarm, then, being removed, no unfavourable circumstance interferes with the prospects of the ironmasters. Business is not only good now, but must continue to be so for some time to come. Numerous vessels are waiting at Cardiff and Newport for cargoes, iron being in good demand. Steam coal also sells freely, and for other descriptions there is an increased sale. Freights, at present, rule as follow:—Coal—Aden, 52*s.* 6*d.* to 55*s.*; Buenos Ayres, 35*s.*; Mauritius, 40*s.* to 45*s.*; Marseilles, 19*s.* to 20*s.*; Naples, 18*s.* 6*d.*; Venice, 24*s.* to 25*s.*; Alexandria (coker), 25*s.*; Constantinople, 20*s.*; Gibraltar, 16*s.* to 16*s.* 6*d.*; French ports, 11*s.* to 14*s.* francs; London, 8*s.* 3*d.* to 8*s.* 6*d.* Iron—Constantinople, 25*s.*; Genoa, 23*s.*; Havannah, 30*s.*; New York, 22*s.*; Trieste, 27*s.* 6*d.* to 28*s.*

The case of Mr. Thomas Nicholson, of Lydney, coal merchant, came before the Commissioner of the Bristol District Court of Bankruptcy on Tuesday. After some details had been entered into, the solicitor for the opposing creditors stated the grounds on which he objected to the allowance of the bankrupt's certificate. These were—that the bankrupt had made false entries in his books wilfully, and with intent to conceal the true state of his affairs from his partners and creditors; that he wilfully misrepresented the state of his affairs, thereby obtaining forbearance of his creditors; that he fraudulently made a mortgage of property which was not his own; that he wilfully and fraudulently appropriated a sum of 500*l.* received from the Forest of Dean Iron Company, the property of his partners, to his own use; that he fraudulently deposited as a security that which was no security; that he dealt in accommodation bills; that he had fraudulently omitted from his accounts sums he had received on account of his partners, and appropriated them to his own use—viz., a sum of 150*l.* received from a person named Pinkerton; and that he had fraudulently obtained money from a person who had been satisfied since the bankruptcy. On Wednesday the Court met again; the whole day was occupied in the examination of witnesses in support of these grounds of opposition.

Rather large arrivals of iron ore have taken place this week, both at Cardiff and Newport. The importations of copper ore to Swansea have been small latterly, and during the last few days comparatively little has come to hand. The smelters, however, are actively engaged in the execution of valuable commissions, and at Landore considerable activity exists. The trade increases in extent almost monthly, and constant improvements are being made in the several works. The exports last year greatly exceeded those of 1857, and this year's returns are likely to show a similar result. A case in which some smelters at Llanelli were involved came before the Court of Chancery on Wednesday, the defendants (Messrs. Chambers) being accused of trespassing on Crown lands. The matter has been before the Court for several years, and it now remains in an undecided state.

Colliery operations in Glamorganshire are proceeding with vigour. In

the Aberdare valley the pits are all in full work, and the men find good employment. The same state of things prevails in the Rhondda and Rhymney valleys; and, in fact, complaints of slackness are now few and far between. The Monmouthshire works are equally favourably situated, the most satisfactory accounts having reached us from Blaina, Ebbw Vale, Blaenavon, and Nant-y-Glo.

An accident occurred this week to a collier working in the New Tredegar Pit, by a fall of coal. The man died in a few hours, but the cause has no distinctive peculiarities. An inquest was, of course, held, and a verdict of "Accidental Death" returned. We may add that we hear this pit is being most profitably worked, and it is altogether conducted in the most energetic manner.

A Bristol paper reports the discovery of a very large vein of coal at Over, where a tunnel for a railway is being made. Several of the inhabitants have for years surmised that coal could be obtained there, and at length their anticipations have been realised.

#### REPORT FROM NORTHUMBERLAND AND DURHAM. [FROM OUR CORRESPONDENT.]

APRIL 21.—Some slight improvement has taken place in the Coal Trade, caused by the great change recently experienced in the weather.

The Seaton Delaval Colliery Company have advertised for tenders for the sinking of a new shaft on their extensive royalty.

The alarm and want of confidence caused by the war rumours have operated most injuriously on the prospects of the great engine building concerns on the Tyne, and, in consequence, a large number of men have been discharged lately by the principal firms.

A short strike has occurred at the Hunwick Collieries, near Bishop Auckland; a dispute having taken place between the owners and the workmen respecting the removal of a measure, or test-tub, kept at the surface, for testing the quantity of coal sent in the working tubs to bank; this test-tub having been used during the year 1858-9, and being of a similar capacity to a working tub, which contains 38,350 cubic inches. It appears that the men had agreed to the bond for 1858-9, and signed it, this bond being the same as the former bond. But it would appear, from the evidence, that the owners had determined to have more coals sent to bank in the tubs, and for that purpose had caused the old test-tub to be removed, and a new one constructed which contained 41,689 cubic inches. This change appears to have been scarcely sufficiently explained to the men previous to the signing of the bond. It appears to us, also, to be rather a sinister proceeding in itself. In consequence of the misunderstanding, the men had refused to work, and three of them were committed to prison. The case came before the magistrates at Bishop Auckland on Thursday last, when Mr. Roberts appeared for the men, and Mr. Tiplady, of Durham, for the owners. It was evident from the commencement of the hearing of the case that the magistrates were anxious to do justice to both parties, but the tragic airs and general absurd conduct of Mr. Roberts tended very much to complicate affairs, and throw obstacles in the way of an amicable adjustment of the differences. He was at one part of the proceedings ordered into custody for contempt of Court, and the magistrates left the bench.

Mr. Tiplady, on the part of the owners, stated that they would be satisfied if the working tubs were fairly filled in the pit, and thus dispense with the use of a test-tub altogether. This is a very common arrangement in the trade, and one which generally works well. The use of a test-tub being extremely apt to breed contention and disputes. After much negotiation between the parties, it was ultimately agreed to have a test-tub not differing much in capacity from the working tub, and so the matter ended.

#### THE IRON AND METAL TRADES OF STAFFORDSHIRE. [FROM OUR CORRESPONDENT AT WOLVERHAMPTON.]

APRIL 21.—Of the Iron Trade there is nothing fresh to say: it is very flat. Purchases on a large scale are out of the question, and for inferior makes lower prices must be accepted, but as, for the last six weeks at least, the demand has been limited to the supply of merely pressing necessities, a steady dribbling in of small orders for good iron is necessary in order for the regular operations of the country to be sustained. So it follows that makers of good quality, with very little in hand, go on steadily from day to day, and men are in fair work. Makers of superior iron show no disposition to sell below the present low rates; and even in pig-iron some few—very few, certainly, still one or two—scarcely make any reduction from the prices of last quarter.

In the Hardware Trades there is not by any means a brisk demand, but a very fair trade is doing of the steady permanent kind, which is safe, although greater activity is to be desired. Considering the complete uncertainty which surrounds the future at home and abroad, trade keeps up better than could have been expected.

A fatal boiler explosion occurred at the Old Park Colliery of Messrs. Lloyd, Foster, and Co., at Wednesbury, on Friday. At the time of the explosion a skip containing several men was descending a shaft, and as the engine was knocked to pieces by the materials driven against it, the shaft was detached, and fell by its own weight. Happily, however, this shaft was an exception to the almost universal rule in South Staffordshire, and was fitted with guides, which prevented the skip descending so rapidly, so that the men sustained no serious injury. The stoker and engineer escaped in a remarkable manner, but a man who was near, but not employed at the colliery, was killed by a portion of the broken machinery striking him. At the opening of the inquest it was proved that the bursting of the boiler arose from the cause which almost invariably occasions these accidents—the water being allowed to get low, the plates in consequence becoming red-hot, and the sudden admission of water, or the disturbance of that in the boiler, causing a sudden creation of steam. The engineer said he had tried his gauge shortly before the accident, but supposed it must have stuck. He was regarded as a very careful man. Mr. Longridge, the Government Inspector of Mines, was present at the inquest, and remarked that, in addition to the recent ease of the plates having become red-hot from over heating, the appearance of the interior of the boiler plainly showed that this had been the case frequently before. He highly praised the arrangements for raising the skips in the shafts, to which several men owe the preservation of their lives.

Meetings of colliers are being held throughout the district on behalf of the Miners' Petition, the features of which have been previously noticed in the Journal. The leading one is that the hours which miners work shall be restricted, by legislative enactment, to eight hours per day. If the colliers would work eight hours daily, instead of playing two or three days, and then working day and night during the latter part of the week, it would be a great gain to their employers. The leaders of the movement urge that the leisure to be thus acquired should be devoted to improvement.

Except in Walsall and Dudley there is no contest in the parliamentary elections in this district, and even in those towns the colliers, as such, do not appear to be taking any prominent part.

#### REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE. [FROM OUR CORRESPONDENT IN CHESTERFIELD.]

APRIL 21.—The unsettled position of political affairs, consequent upon the near approach of a general election, and the somewhat uncertain prospect of war, form the only topics of conversation in business circles, to the comparative exclusion of commerce. The quarterly meetings, which terminated on Saturday last, afford ample illustration of the fact that our commercial relations are being considerably disturbed by our critical position. Under these circumstances, there have been fewer orders given out, and merchants show a great disposition to confine their transactions to immediate requirements. After the general election and the meeting of the proposed Congress, no doubt, the Iron Trade will rally. The enquiry for railway ironwork is steady, but for other descriptions of iron there is little demand, and a belief prevails to some extent that unless the trade should improve a reduction will have to be made. A large house in Yorkshire has just received some heavy contracts from the Ordnance Department.

The Coal Trade is generally more active than it has been during the last fortnight, but business is scarcely so brisk as it was at this period last year. The prices are tolerably steady, but we hear of some large collieries having made a small reduction in their rates.

The lead mining interest is exceedingly quiet, and there is but little to notice of any interest.

The Mill Dam Mine is progressing very well, and the directors are

working vigorously to bring the mining operations into activity, which they will succeed in doing as soon as the plant is completed.

The Mill Town Mine is looking much better than it was, and the men are getting some good ore. The last sale was a very satisfactory one.

The New Midland Mine is proceeding slowly; a large quantity of water has found its way into the shaft, and now the men are employed in pumping it out—a process which is very slow and tedious.

The system adopted by the Great Northern Railway in carrying out the trade of coal merchants is creating wide-spread dissatisfaction to the coal masters of the South Yorkshire district; and we learn that during the present season vigorous efforts will be made to put all the coal masters on a par with regard to the price charged per ton. Under present circumstances the company can undersell the merchants in the London markets, and, moreover, they have the power to annoy them if they feel so disposed.

#### \* THE MINING INDUSTRY OF IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

The *Mining Journal*, the accredited organ of mining industry at home and abroad, has always recognised the claim which Ireland has upon the attention of all engaged in mining pursuits, and has at all times laid open its columns to any statements tending to enlighten the public mind upon what cannot be any longer regarded as unworthy of attention—the Mineral Wealth of Ireland. To satisfy the known public want in this respect will be the constant aim of your correspondent, who, it must be confessed, has an ample field to work upon, and, it may be added, an unknown one; indeed, it is difficult to understand how a country which at one time supplied to other countries so much manufactured iron, and has from an early date yielded its precious treasures—the nobler as well as the baser metals—has not been thought worthy of having events connected with its mining industry duly, or indeed at all, recorded. The news of the time seems to have hitherto satisfied the desire for knowledge of Irish mining, and the result is that no authentic record exists of its past history, and it is, therefore, impossible, having scarcely any data, to trace satisfactorily the progress of mining in Ireland hitherto. It must be confessed that, owing to the past mismanagement of companies formed to work minerals here, Irish capital has been for a long time past diverted from such a legitimate source of employment; but I am happy in being able to announce a new era in this respect, as evidenced by the great success which has attended the launch of the Carysfort Mining Company, the entire capital of which has been subscribed for, and nearly altogether by Irishmen, the names of the directors being such as to inspire the greatest possible confidence. Of this company's proceedings I hope to keep you advised; and I sincerely trust that while my chronicle will be true, it will also be highly favourable. The apathy which has hitherto existed seems to be wearing off, and I, therefore, join all well-wishers to this country in hoping that the intelligence, industry, and wealth of our inhabitants will be no longer wanting their proper direction.

I hope in my future letters to lay some matters of much interest before your readers; for the present I will content myself by directing attention to the circular-letter addressed to the shareholders of the Givernau Mining Company, as also to the report of Captain Boundy. This mine possesses some geological features of interest (to which I will hereafter refer), and presents, as far as can be ascertained, great chances of success—the indications being of a highly favourable nature.

The following very interesting results have been obtained by analysis made by the laboratory students in the Museum of Irish Industry, under the able guidance of the Professor of Practical Chemistry, Mr. Robert Galloway, F.C.S.:—

MUNSTER COAL FIELD—COUNTY OF CORK. (Showing amount of iron in 100 parts of ore.)	
Inferior clay ironstone from coal measures at Dromagh Colliery, Kanturk	515
Massive clay ironstone, forming thin bands in the shale overlying the pennine vein, at Lisnacore Colliery, near Kanturk	366
Massive clay ironstone, forming beds or bands in the overlying shale of the "sweet vein," at Dromagh Colliery	412
TIPPERARY COAL FIELD—SLIEVARDAGH COLLIERIES.	
Clay ironstone, forming thin beds interstratified with the shale forming the roof of the upper seam...	33-00
TIPPERARY COAL FIELD—EARL HILL COLLIERIES.	
Amount of iron in 100 parts of protoxide	31-02
Amount of iron in state of peroxide	6-08 = 38-90
Massive clay ironstone, forming beds resting on the alum shale, at Tallinwannia-Creelva Works	33-95
CONNAUGHT COAL FIELD.	
Massive clay ironstone from the beds associated with the coal measures at Ballycastle Collieries	35-15
ANTRIM COAL FIELD.	
Clay ironstone balls found in the grey slate clay of the coal measures at Coal Island Colliery	27-75
Massive clay ironstone passing into red hematite, at Coal Island Colliery—protoxide	1-23
Ditto ditto ditto—peroxide	24-27 = 25-90
LEINSTER COAL FIELD—COUNTY KILKENNY.	
Clay ironstone balls found in the shale of the coal measures near Castlecomer	21-45
LEINSTER COAL FIELD—QUEEN'S COUNTY.	
Clay ironstone balls found in the shale of the coal measures at Doocane	18-17
Brown hematite from Kilbride, county Wicklow	27-42

**FOREST OF DEAN.**—(From our Correspondent.)—In this district the coal trade has been steady for the past few weeks, but the price is not sufficiently remunerative to the proprietors on account of the competition with Newport and Cardiff, at both of which ports the quotation has been lowered considerably. The trade in iron ore is exceedingly good, and a larger quantity has lately gone away from the western side than ever; the eastern iron mines alone having sent upwards of 3000 tons per month. The trade at Sling and Ham Pits has been, and is, also exceedingly good. This may be accounted for from the fact that the iron ore trade is got into legitimate hands, and that the sellers are connected with established works; while it used to be the case that the market was supplied by "middle men," who purchased from men working in the out-croppings, or in "slope pits," who were given but a very low price, and who adulterated with refuse stone and even common soil, until the so-called ore was dear at any price. The effect of this was to give the Forest a bad name, and well nigh destroy its iron ore trade altogether. But the superior nature of the mine raised at the pits upon the Easter award is fast redeeming the character of the district, and railways alone are needed to make this royal forest what it is destined for by natural advantages and productivity—one of the most facile neighbourhoods for supplying Staffordshire and South Wales with rare quality calcareous ores, and for making iron of the most superior quality at home, for its deposits of iron ore are unlimited.

**WATER WHEELS.**—An improvement in that class of water-wheels in which the water is made to act upon the wheel by atmospheric pressure, produced by means of a vacuum formed in a draft tube below the wheel, has been patented, for a correspondent, by Mr. W. E. Newton. The invention consists in the peculiar construction of the wheel, and acts in connection with the draft tube, whereby the wheel is rendered exceedingly simple in construction and very efficacious. A horizontal shaft is placed in a box on a penstock, through which the shaft passes transversely; this box is provided at each side with tubular projection. The screws are permanently attached to the horizontal shaft, and form the wheel. On the shaft are two easily fitting

VENTE PAR SUITE DE LIQUIDATION VOLONTAIRE DE LA SOCIETE DES MINES ET USINES DE CUIVRE DE MARIENBERG ET BENDORF.

**LES PROPRIETAIRES FERONT EXPOSER EN VENTE PUBLIQUE**, au plus offrant, à Cologne, le 23 Mai, 1859, à Trois heures de l'après-midi, par le Ministère du Notaire soussigné, M. Eglinger, et dans son étude, rue Richmondtre 4, les MINES DE CUIVRE CONSOLIDÉES DE ST. MARIENBERG, et la FONDRERIE DE METAUX DE BENDORF. Cette vente comprend :—

1.—Les MINES DE CUIVRE de ST. MARIENBERG, englobant 8 concessions particulières, consolidées par décret royal du 30 Mars, 1850, sous le nom de Mine de St. Marienber, avec APPAREILS à VAPEUR et BATIMENTS qui en dépendent. Les mines sont situées à environ ½ lieue du Rhin, mairie Unkel, cercle Neuwied, régence Coblenz, Prusse rhénane, et le bien-fonds qui en dépend sur les diverses communes de Bruchhausen, Unkel, Rheinbreitbach, Erpel, Orsberg, mairie Unkel, forme une surface totale d'environ 18 morgen.

2.—La FONDRERIE DE METAUX de BENDORF composée de 6 fours à cuivre (système gallois), 1 four à chaux, ateliers, magasins, maisons qui en dépendent.

Cette mine est située près du Rhin au lieu dit Erdweg, cercle Neuwied, régence Coblenz, Prusse rhénane, possède une surface totale de terrain d'environ 6 morgen.

Pour les conditions, s'adresser à M. EGLINGER, notaire, à Cologne; ou au liquidateur de la Société à la Fonderie de Métaux à Bendorf, Mr. ED. LETRANGE.

Cologne, le 11 Mars, 1859.

W. EGLINGER, Notaire.

[TRANSLATION.]

SALE IN CONSEQUENCE OF THE VOLUNTARY LIQUIDATION OF THE SOCIETY OF COPPER MINES AND SMELTING WORKS OF MARIENBERG AND BENDORF.

**THE PROPRIETORS WILL OFFER FOR PUBLIC SALE**, to the highest bidder, at Cologne, on the 23d day of May, 1859, at Three o'clock in the afternoon, through the undersigned notary, and his offices, No. 4, Richmondtre, the CONSOLIDATED COPPER MINES of ST. MARIENBERG, and the SMELTING WORKS of BENDORF. The sale comprises :—

1.—The COPPER MINES of ST. MARIENBERG, uniting 8 concessions, consolidated by royal decree of March 30, 1850, under the title of the St. Marienber Mine, together with STEAM MACHINERY and BUILDINGS attached. The mines are situated at about ½ of a league from the Rhine, in the *mairie* of Unkel, in Neuwied, Coblenz, Rhénish Prusse; and the dependent property in the several communes of Bruchhausen, Unkel, Rheinbreitbach, Erpel, Orsberg, *mairie* Unkel, form a total surface of about 18 morgen.

2.—The SMELTING WORKS at BENDORF comprise 6 copper furnaces (*système gallois*), 1 lime kiln, together with ateliers, magasins, and dependent buildings.

These works are situated near the Rhine, at Erdweg, in Neuwied, Coblenz, Rhénish Prusse, and cover a surface of about 6 morgen.

For conditions, &c., apply to MAITRE EGLINGER, notaire, Cologne; or to the liquidator of the society, Mr. ED. LETRANGE, at the smelting works, Bendorf.

Cologne, March 11, 1859.

W. EGLINGER, Notaire.

[TRANSLATION.]

VENTE PUBLIQUE DE MINES.—A la demande du Conseil d'Administration de la faillite de L. Strauss, à Brilon, le soussigné NOTAIRE VENDRA PUBLIQUEMENT ET JUDICIAIREMENT, le lundi, 4 Juillet, 1859, à Trois heures de relevée, en son étude à Cologne, Richmondtre, No. 4, la QUATRIÈME PART indivise des MINES ci-après désignées appartenant à la dite faillite, en commun avec trois co-intéressés :—

A.—De MINES DE FER, en partie concédées, en partie demandées en concession, situées dans le principauté de Neuwied.

B.—De 35 MINES DE FER et MUTHUNGS, situées dans les quartiers miniers Oberberg, d'Unkel, et de Hamm, district du Bergamt des Siegen, province Rhénane de Prusse.

C.—De 33 MINES et MUTHUNGS de MINERAIS de FLOMB, de BLENDÉ, de MINERAIS de CUIVRE, et AUTRES METAUX, situées dans les mêmes quartiers.

Pour tous les renseignements, s'adresser à l'étude du Notaire soussigné, ou sont aussi exposées la description exacte et officielle du Bergamt de ces mines, les cartes et les plans de leur situation ainsi que les conditions de la vente.

Cologne le 8 Mars, 1859.

W. EGLINGER, Notaire.

[TRANSLATION.]

PUBLIC SALE OF MINES.—In accordance with instructions from the Council of Administration under the bankruptcy of L. Strauss, on Monday, the undersigned NOTARY WILL PUBLICLY AND JURIDICALLY SELL, on the 4th day of July, 1859, at Three o'clock in the afternoon, at his offices, No. 4, Richmondtre, Cologne, the entire ONE-FOURTH PART (which is comprised under the bankrupt's estate) of the undermentioned MINES, which the bankrupt held in common with three co-partners, that is to say :—

A.—Of 56 IRON MINES, part conceded, and part having concessions demanded, situated in the principality of Neuwied.

B.—Of 35 IRON MINES and MUTHUNGS (rights to claim concessions), situated in the well-known mining districts of Oberberg, Unkel, and Hamm, within the jurisdiction of the Bergamt of Siegen, in Rhénish Prusse.

C.—Of 35 MINES and MUTHUNGS yielding the ores of LEAD, BLENDÉ, COPPER, and OTHER METALS, situated in the same locality.

For further particulars, address the undersigned, at his offices, as above, where also is deposited the precise and official description (from the Bergamt), maps and plans of the position, and conditions of sale.

W. EGLINGER, Notary.

[TRANSLATION.]

NOW READY, 8vo., with plates, boards, &c.,

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Embracing the Performances of Steam Ships, Experiments with Propelling Instruments, Condensers, Boilers, &c., accompanied by Analyses of the same, the whole being original matter. By B. F. ISHERWOOD, Chief Engineer, U.S. Navy.

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98

THE CARWAY AND DUFFRYN STEAM COAL COMPANY (LIMITED).

Registered capital £50,000, in 10,000 shares of £5 each.

BROKEN—S. E. Nutt, Esq., 3, Crown-court, Threadneedle-street.

OFFICES OF THE COMPANY,—5, GREAT QUEEN STREET, WESTMINSTER

This company was incorporated and commenced working in January, 1858, the well-known collieries of Carway and Duffryn, and the adjacent mineral properties, the produce of which is well known and highly appreciated, not only in those districts, but in the London market and in most of the ports of England and Ireland.

The collieries are situated in the parishes of Pembrey and Kidwelly, in the county of Carmarthenshire, about five miles, by canal, from the shipping ports of Barry Port and Kidwelly—at which the company have depots for storing and shipping their coal—and about five miles from the Pembrey station of the South Wales Railway. The Carway and Duffryn Collieries have been opened some years, and during the past year this company have expended a considerable sum in further developing these valuable properties and extending the works.

The several properties consist of about 500 acres, and are held under leases at certain royalties.

These properties are estimated to contain 20 million tons of workable coal.

There are 17 veins, and the chief of them are shown on the Geological Ordinance Survey of Great Britain.

The veins vary from 1 to 9 feet in thickness, but the Big Vein of 9 ft. is the only one being worked at present, which alone is calculated will yield of workable coal 3,473,910 tons, or sufficient to last nearly 60 years at 60,000 tons per annum.

The plant at present consists of two steam-engines, with all the winding gear and pumping apparatus in full operation; the newly-erected engine-house and workshops, smithies, storehouses, stabling, offices, &c., the whole constructed in the best possible manner; also, railway plant, trucks and tramways, barges, horses, &c.—in fact, every adjunct necessary at the present moment for raising and shipping with dispatch 200 tons of coal per day.

Since the 1st of January, in the last year, when the company first took possession of these mines, a large sum of money has been expended in improving the underground and surface workings, and whilst these new works have been in progress, only a comparatively small quantity of coal has been raised, (about) 25,000 tons, the whole of which has been readily sold at a good profit. The average raisings at present are 600 tons per week. By the end of the month of April the whole of the improvements will be finished, when the company will be enabled to raise with facility 200 tons per day, or in round figures 60,000 tons per annum.

The average selling price of all description of coal (free on board ship) in Pembrey Harbour or Kidwelly Quay is 8s. per ton.

An inspection of the company's books will enable the most scrupulous to satisfy themselves that this is one of the most legitimate undertakings ever offered to capitalists.

The present capital of the company is £19,000: and the directors require the sum of £6000, which will enable the directors further to develop the collieries, and leave working capital in sufficient for all purposes. When this £6000 is subscribed, the directors undertake to close the capital account at £25,000.

It is now proposed to issue debentures for £6000, bearing 6 per cent. interest, of not less than £25 each, with the option to the holders of exchanging the same for shares of an equal amount, and thus participating in the profits with ordinary shareholders, if before the expiration of two years from this time the holders of these debentures declare their intention so to do—an option of which the directors feel the debenture holders will only be ready to avail themselves, as it is contemplated the divisible profits for the current year will be over 20 per cent.

The directors will receive applications for debenture bonds in the accompanying form, and will give the preference to applications from parties who propose to take up bonds of not less than £100 each.

Applications may be sent either to the broker or to the offices of the company.

FORM OF APPLICATION FOR DEBENTURE BONDS.

To the Directors of the Carway and Duffryn Coal Company (Limited).

GENTLEMEN,—I request you to allot to me debenture bonds of £2 each of the above company, payable in five years from the date thereof, with interest at 6 per cent. half-yearly in the meantime, which I undertake to accept, and pay the amount thereof within 14 days after being required so to do by you.

Dated this day of 1859. Name ..... Address .....

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WEST DEVON CONSOLIDATED COPPER MINING COMPANY (LIMITED), CALSTOCK, COUNTY OF CORNWALL.

In 30,000 shares of £1 each.

Deposit of 5s. per share to be paid to the bankers of the company on application.

Four months to intervene between each call. No call to exceed 2s. 6d. per share.

All liability to cease on payment of £1 per share.

DIRECTORS.

RICHARD BAGNALL, Esq., Cliff Hall, Tamworth.

THOMAS COTTERELL, Esq., 50, Eaton-square, London.

THOMAS ELD, Esq., Pool Hall, Market Drayton, Salop.

EDWARD SHIRLEY KENNEDY, Esq., Boyne Grove, Maidenhead.

JOSEPH WILSON, Esq., South Castle-street, Liverpool.

THOMAS WINKLOWTH, Esq., Canbury, London.

BANKERS.—The Commercial Bank of London.

SOLICITORS.—Mess

[APRIL 23, 1859.]

## THE SMELTING, REDUCTION, LIME, AND COAL COMPANY (LIMITED).

Capital £80,000, in shares of £1 each. Deposit, 10s. per share.

## DIRECTORS.

WILLIAM PEACE, Esq., F.G.S., Wigan, Chairman.  
ISAIAH BOOTH, Esq., Manchester, Managing Director.  
JOHN HELLIS, Esq., Manchester.  
THOMAS GOODIER, Esq., Liverpool.  
FRANCIS LANGTON, Esq., Brighton.  
JOHN THOMPSON, Esq., M.A., Wigan.  
JOHN SHIMMIN, Esq., Liverpool.  
JOSEPH WILSON, Esq., Liverpool.

BANKERS.—Messrs. I. Barnard and Co., Lord-street, Liverpool.

AUDITOR.—James Wensley, Esq., Gloucester-place, Liverpool.

SOLICITOR.—Maskell W. Peace, Esq., Wigan.

SECRETARY.—Mr. F. Owen.

OFFICES.—6, CASTLE STREET, LIVERPOOL.

The objects of the company are to carry on the working of coal, cannel, and ironstone, smelting, and lime burning, and other operations in aid of the same.

The company have purchased a freehold estate at Mold, in Flintshire, 114 acres in extent, and also the leases of the coal, cannel, and ironstone, existing under adjacent estates, comprising an additional area of about 300 acres, held upon favourable royalties for 21 and 25 years, from 1857.

These properties are advantageously situated at a distance of 29 miles from the large export markets of Birkenhead and Liverpool, on the Mold branch railway, with which the company's works and collieries will be connected by a short line of a mile in length, of easy construction, over land already leased and purchased for the purpose.

Mr. Peace estimates that the estates of the company will yield from mines now won and in work nearly 4,000,000 tons of coal, exclusive of additional seams of coal and ironstone which are referred to by Mr. Higson in a report made by him.

The quality is evidently adapted for smelting, steam, and other purposes, and is also particularly suitable for exportation, being similar in character with the Hartley coals of the North, and the demand for this description of coal is great and increasing.

The present shafts are being enlarged, new machinery is being put up, and preparations are being made for carrying on the colliery works on an extensive scale. Valuable lime is found in the immediate neighbourhood, leases of which are attainable by the company on advantageous terms.

In addition to the coal and lime, there exists in the freehold estate large deposits of ironstone, which can be profitably disposed of to the ironmasters of the neighbourhood.

The profits from smelting are generally very large, and the company anticipate considerable profits therefrom. The locality is suitable, as it abounds in lead and zinc ores, and provides unusual facilities for conveyance by railway and for water carriage by the Dee and the Mersey.

In addition to the ores of the district, the promoters have made advantageous arrangements for the reception of consignments of foreign ore, samples of which have been tested in this country, and proved to be of rich quality.

The directors have fixed the present amount of capital at £80,000. From the reports of several experienced mining engineers, the directors are warranted in anticipating a profit on the capital embarked, at the rate of 30 per cent. per annum. The vendors of the collieries have accepted the purchase money in paid-up shares of the company, leaving only a limited number to be allotted, and for which the directors are prepared to receive applications up to the 14th May next.

The company being under the Limited Liability Act, shareholders having paid up their shares in full are exonerated from all further liability.

In the case of shares being paid up in full, the company will allow interest at the rate of 5 per cent. per annum upon the balance paid up beyond the sum for the time being called for.

Application for the remaining shares must be made in the following form, and forwarded to the secretary, Mr. F. Owen, 6, Castle-street, Liverpool:—

To the Acting Directors of the Smelting, Reduction, Lime, and Coal Company (Limited).

GENTLEMEN.—I request you will allot me shares in the undertaking of the above company, and I hereby agree to accept the above number of shares, or any less number that may be allotted to me, and to pay a deposit of 10s. per share, at such time and place as may be appointed for that purpose in the letter of allotment, and that this application shall be taken as an acceptance by me of so many shares, not exceeding the number above-mentioned, as you may think fit to allot me.

Name in full.....

Residence .....

Profession, trade, or occupation .....

NEAR LLANGUNIOW, MONTGOMERYSHIRE.

Capital £5000, in 3000 shares of £1 each. Deposit, 5s. per share.

The remaining 15s. per share to be called for as may be required, in calls not exceeding 2s. 6d. per share, and not oftener than every two months.

The company is intended to be incorporated under the provisions of the Limited Liability Act, 19 and 20 Vic. cap. 47.

BANKERS.—London and Westminster Bank, Lombard-street; the North and South Wales Banking Company, Wrexham.

SECRETARY.—Mr. Thomas Henshaw, Hope-street, Wrexham.

The Hirnant Mines have hitherto been only worked by a few individuals, principally by Mr. EDWARD LLOYD, of Pen-y-bont Yawr, and the workings show the existence of both lead and copper ore; the former, there is every reason to believe, will be found in a very considerable body.

The present holders of the mines would on no account part with their interest if they possessed the means to carry them on in a proper manner, and they propose to dispose of their interest in them for £1000, £800 of which will be taken in shares, and the remaining £200 to be paid to Mr. Lloyd, for work done by him at the mines; £50 has also to be paid to Mr. PILKINGTON, for his survey and report, with plans and sections, which are carefully got up to show the true value of the mines, but this sum he has agreed to take in shares.

It is computed that the expense of sinking to a depth of 50 yards, and erecting the necessary machinery will amount to £500. Purchasing the interest of the present holders, cost of lease, plans, sections, and surveying, &amp;c., is estimated at £1300; so that, after sinking a depth of 50 yards, a sum of £1200 will be available for exploring and carrying on the mine, when it is fully considered lead will bear largely. The liability of the shareholders will be strictly limited to £1 per share.

Plans and sections of the mines, with samples of the ore, may be seen on application to JAMES CROFTS, Esq., mining broker, 1, Finch-lane, Cornhill, London; WILLIAM JONES, Esq., 3, Serjeant's Inn, Fleet-street, London; J. PILKINGTON, Esq., mining engineer, Wrexham; or to the SECRETARY, Wrexham; to any of whom applications for shares (in the annexed form) may be addressed.

To the Committee of the Hirnant Lead Mining Company (Limited).

GENTLEMEN.—I request you will allot me shares in the above mining company, and I agree to accept the same, or any lesser number that may be allotted to me. I enclose herein £....., being the first payment of 5s. per share thereon, for which I request you will forward me the bankers' receipt.

Name in full.....

Residence .....

Occupation .....

Dated this day of 1859.

THE GREAT CENTRAL MINING COMPANY OF DEVON (LIMITED).

Capital, £30,000, in 30,000 shares of £1 each.

5s. per share, and 5s. on allotment.

Incorporated and Registered under the Joint-Stock Companies Acts, 1856 and 1857, and liability limited to amount of subscription.

DIRECTORS.

STEPHEN ATTWOOD, Esq., Brighton.  
FREDERICK GEORGE FELLOWE, Esq., 11, Grove Hill-terrace, Camberwell, S.  
GEORGE HENRY FLETCHER, Esq., Kircham House, Prestwich, Manchester.  
THOMAS PRITCHARD, Esq., 20, Manchester-street, Manchester-square, W.  
JOSEPH NIGHTINGALE, Esq., St. Leonard's, Mortlake, Surrey.  
HENRY SARSON, Esq., City-road, E.C.

HOWARD SPENSLEY, Esq., 16, Union-court, Old Broad-street, E.C.

BANKERS.—Messrs. Martin and Co., 68, Lombard-street, London.

BROKERS.—Messrs. Sims and Hill, 3, Bartholomew-lane, E.C.

SOLICITOR.—H. Fryer, Esq., 2, Gray's Inn-place, Gray's Inn, W.C.

CAPTAIN OF THE MINES, AND LOCAL MANAGER.—Mr. James Browning, East-street, Ashburton.

AUDITOR.—Charles Fitch Kemp, Esq., public accountant, 7, Gresham-street, E.C.

SECRETARY.—Ernest G. Fellowe, Esq.

OFFICES OF THE COMPANY.—70, CHEAPSIDE, E.C.

PROSPECTUS.

This company has been formed for the purpose of working extensive grants of mineral lands, situated most favourably at the junction of the slate and the kilns, a country allowed by the highest geological authorities to be the most congenial for the production of mineral deposits. The sets are centrally situated, in the parish of Ilfracombe, near Newton Abbott, in the county of Devon, between the two celebrated mining districts of Tavistock and Ashburton. This geological fact is of the greatest importance, inasmuch as the stratification on the western range of the Dartmoor Hills, in the Tavistock district, has long been celebrated for the enormous quantity of ore it produces.

The vast resources of the extensive set secured by the Great Central Mining Company of Devon (Limited) are already considerably developed; copper of great richness, silver, iron, tin, slate, and granite are found to exist in large quantities, both near the surface and at considerable depths; operations have been commenced with great success upon five levels—two of tin and three of copper; a shaft has been sunk for 25 fms., and adit levels driven for 70 fms. east and west on the course of the tin levels, which have yielded 21 tons 13 cwt. of white tin, and sold for £77 per ton; some stones from these levels have been assayed, and found to contain as large a percentage as 72% of tin.

The copper levels in these sets are numerous, and, from the uneven nature of the ground in which they are situated, are easily wrought upon by means of adit levels, and the expense of costly machinery for draining this part of the mines thus entirely avoided. Up to the present time three copper levels have been opened upon, showing extraordinary evidences of great mineral wealth. The main lode, or No. 1 lode, yields tin, copper, and silver. From this lode samples upon assay are proved to contain fully 17.25 per cent. of copper, and about 100 ounces of silver to the ton of the ore. In the western portion of these sets an immense champion copper lode (No. 2), which is 20 ft. wide, has been opened upon, producing rich gosses, capel, quartz, muriac, and black and grey copper ore. Another lode (No. 3), about 140 fathoms to the south-west of the lode No. 2, has been opened upon by means of a shaft. It is at present from 3 to 5 ft. wide, composed of quartz and rich black and yellow ore of great value. The composition of these lodes resembles that of the lodes in the great dividend-paying mines in the neighbourhood of Tavistock. It is intended to drive adit levels on the course of these three copper lodes for a few fathoms, when rich tribute-paying ground will be opened up. Large beds of ironstone are found in all directions, also bunches of silver-lead ore, which upon assay show a large proportion of silver. No operations, however, have been commenced upon either the iron or lead deposits.

Water-power exists for crushing and dressing the ores. Timber can be purchased upon the spot at very moderate rates, and good roads have been made to the neighbouring towns and villages for the transport of ores and materials; labour is also cheap and abundant.

Messrs. Mitchell and Rickard have assayed some average stones from the various lodes. Their certificates of assay show, in the case of tin lodes, percentages of 21, 22, 29, and 35 from four samples; and in the case of copper lodes, per centages of 20.8-10ths to 25-210ths of fine copper, from two samples.

Prospectuses, with full reports by Capt. Joseph Richards, of the Devon Consols Mine, and Capt. Goldsworthy, of the East Wheal Russell Mines, Tavistock, with forms of application for shares, can be obtained at the offices of the company, 70, Cheapside, where also samples of the ores now being raised may be seen.

## Board of Admiralty, Somerset House.

## CONTRACT FOR COALS FOR ST. VINCENT, CAPE DE VERDE.—THE COMMISSIONERS FOR EXECUTING THE OFFICE OF LORD HIGH ADMIRAL OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND DO HEREBY GIVE NOTICE, that, on Tuesday, the 10th May next, at Two o'clock, they will be READY TO TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING on board Her Majesty's steam vessels at St. Vincent, Cape de Verde, all such quantities of SOUTH WALES COALS,

fit for Her Majesty's steam vessels, as shall from time to time be demanded under a contract for twelve months certain, from 1st June, 1859, and afterwards until the expiration of three months' warning.

A form of the tender may be seen at the said office. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the head-the corner the words "Tender for Coals for St. Vincent," and must be delivered at Somerset-place, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £500 for the due performance of the contract.

Department of the Storekeeper General of the Navy, Somerset-place, April 15, 1859.

## In the High Court of Chancery in England.

## LEAD MINES, COUNTY MONAGHAN, IRELAND.—

TO BE LET, BY TENDER, for a term of not less than 21, or more than 41 years, from the 24th day of June, 1859, in pursuance of directions given by His Honour the Master of the Rolls in England, in a certain cause of Denny v. Denny, and with his approbation, the MINES and LODGES of LEAD and LEAD ORE, with all COPPER ORES, or OTHER ORES or METALS lying in and under the townlands of Derrytusk and Lissugney, containing, according to the Ordnance Survey, 315 statute acres, all adjoining and situate in the parish of Tuylcullen, within the 2 miles of the town and railway station of Ballibay, in the county of Monaghan, Ireland.

The rich character of the lodes that have at present been discovered on the estate has been tested and ascertained by means of three trial shafts and a driving, from which lead ore has been taken of very superior quality, it being found by analysis to contain an unusually large proportion of silver.

Printed particulars and conditions of letting, with forms of tenders and plans of the estate annexed, may be had in London of Messrs. Kingsford and Doman, 23, Essex-street, Strand, W.C.; Mr. MARK SHEPHERD, of 9, Sise-lane, E.C.; and in Ireland of Mr. FRANCIS LIZABETH, E.C., 42, Sackville-street, Dublin; Mr. GEORGE WOOD, Willoughby-place, Enniskillen; and Mr. ISAAC CHAWFORD, Shanmagh, near Ballibay, by the latter of whom the property and works will be shown to intending lessees.

The tenders are to be sent (signed Denny v. Denny, tender for mines, and sealed) to Messrs. Kingsford and Doman, 23, Essex-street, Strand, aforesaid, on or before the 17th day of May, 1859, and Thursday, the 26th day of May, 1859, at One o'clock in the afternoon, at the Rolls Chambers, Chancery-lane, Middlesex, as appointed, as the time and place for ascertaining whether either of the tenders will be accepted.

GEORGE WHITING, Chief Clerk.

## IRISH CONSOLS MINING COMPANY.

## FINAL DIVIDEND TO CONTRIBUTORIES.

IN the MATTER of the WINDING-UP ACTS of 1848 and 1849, and the IRISH CONSOLS MINING COMPANY.—A FINAL DIVIDEND, at the rate of ONE SHILLING AND ELEVEN PENCE FARTHING in the pound, has been declared in this matter, and will be paid by the Official Manager between the hours of Two and Four o'clock, p.m., at 121, Lower Baggot-street, Dublin.

AQUILLA SMITH, Official Manager.

TREHANE MINE.—FOR SALE, at this mine, a 40 in. cylinder ENGINE, BOILER, and CRUSHER.—For particulars, apply to the SECRETARY, at the office of the company, 16, Union-court, Old Broad-street, London; Mr. JOHN PARSONS, jun., Marazion; or to Capt. PETER HARVEY, on the mine. Tenders to be addressed to the committee, at No. 16, Union-court, Old Broad-street, London.—April 12, 1859.

DEVON GREAT ELIZABETH MINE.—NOTICE IS HEREBY GIVEN, that the OFFICES of this mine are REMOVED to the LONDON MINE AGENCY, No. 9, GREAT ST. HELEN'S, BISHOPSGATE STREET, from 57, Old Broad-street, and that Mr. H. PEET has been APPOINTED SECRETARY of the company, in the room of Mr. Nicholson.

By order of the Committee, HENRY PEET, Sec.

April 14, 1859.

RIBDON MINING COMPANY (LIMITED).—NOTICE IS HEREBY GIVEN, that a SPECIAL GENERAL MEETING of the shareholders in this company will be HELD at the White Hart Hotel, Uttoxeter, on THURSDAY, the 28th inst., at Twelve o'clock at noon, for the purpose of confirming the resolution passed at the special general meeting of the 31st of January last, determining the time at which the ordinary annual meetings of the company shall be held. Notice has been given of the intention to propose resolutions to the following effect:

1.—That in place of Clause 47 of the Articles of Association, a clause be adopted giving a vote for every share held.

2.—That an alteration be made in Clause 52, regulating the use of proxies.

3.—That the number of directors be increased.

4.—To regulate the conduct of business at general meetings.

By order of the Board, J. DICKINSON BRUNSTON, Sec.

10, Regent-street, April 16, 1859.

THE WEST PAR CONSOLS COPPER AND TIN MINING COMPANY.—NOTICE IS HEREBY GIVEN, that a GENERAL MEETING of the shareholders in this company will be HELD at the office, 117, Bishopsgate-street Within, London, on THURSDAY, the 5th of May next, at One o'clock precisely.

By order of the Committee, J. H. MURCHISON, Sec. and Purser.

117, Bishopsgate-street Within, London, April 23, 1859.

THE NEW GRANADA COMPANY. Established in April, 1852, under the Statute 7 and 8 Vict., cap. 110.

NOTICE IS HEREBY GIVEN, that the SEVENTH ORDINARY GENERAL MEETING of this company will be HELD at the offices of the company, 192, Gresham House, Old Broad-street, in the City of London, on Wednesday, the 27th day of April, 1859, at Twelve o'clock at noon precisely, for the purpose of receiving the accounts, balance-sheet, and reports of the directors and auditors, for the year ending 31 December, 1858.

By order of the Board, GEORGE E. BREFFIT, Sec.

NOTICE IS HEREBY ALSO GIVEN, that an EXTRAORDINARY MEETING of the above company will be HELD on Wednesday, the 27th day of April, 1859, at the offices of the company, 192, Gresham House, Old Broad-street, in the City of London, at the hour of Half-past Twelve in the afternoon, for the purpose of considering and determining upon the propriety of dissolving the company, and winding-up the affairs thereof. And for the further purpose, in the event of its being determined to dissolve the said company, and to wind-up the affairs thereof, to consider and determine upon the mode in which such winding-up shall be effected. A proposal has lately been made for the transfer of all the property and effects, and debts and liabilities, of the said company to a new company recently formed, under the name of "The New Granada Company (Limited)," which is to take to the same as a "going concern;" and at the meeting to be held as aforesaid, the resolutions hereunder written, or resolutions to the like purport or effect, will be submitted for consideration and approval.

RESOLUTIONS.

1. That the New



## THE MINING SHARE LIST.

## DIVIDEND MINES.

Shares.	Mines.	Paid.	Nom.	Pr.	Business.	Dividends Per Share.	Last Paid.	
700 Aberdovey (silver-lead), Merioneth . . . . .	nil.	..	82½	..	..	0 10 0 .. 0 10 0 - Mar.	1859	
5120 Alfred Consols (cop.), Philack [S.E.] 2 11 10 . . . . .	7 ½	..	63 ¾	..	20 3 0 .. 0 2 6 - April.	1859	..	
10000 Bampfylde (copper), Devon . . . . .	0 12 6 . . . . .	..	0 0 0 .. 0 0 7 ½	..	0 7 ½ 0 .. 0 7 ½ - May.	1859	..	
4000 Bedford United (copper), Tavistock . . . . .	2 6 8 . . . . .	..	7 ½ 7 ½	..	10 13 6 .. 0 5 0 - Mar.	1859	..	
240 Boscan (tin), St. Just . . . . .	20 10 0 .. . . . .	..	60 .. 55 60	..	23 0 0 .. 1 0 0 - Nov.	1858	..	
200 Bothalack (tin, copper), St. Just* . . . . .	91 5 0 .. . . . .	..	180	..	435 15 0 .. 2 10 9 - April.	1859	..	
16000 Brea (copper, tin), Illogan . . . . .	15 0 0 .. . . . .	..	50	..	70 75	..	247 10 0 .. 0 2 0 - Mar.	1859
200 Cefn Cwrt Brynwyd (lead), Cardigansh. 33 0 0 .. . . . .	37	..	5 0 .. 0 .. 2	..	5 0 .. 0 .. 2 - Mar.	1858	..	
12000 Copper Miners of England . . . . .	25 0 0 .. . . . .	..	25	..	7 ½ per cent. — Half-yearly.	..	..	
250000 Ditto ditto (stock) . . . . .	100 0 0 .. . . . .	..	25 ½	..	1 per cent. — Half-yearly.	..	..	
1055 Craddock Moor (copper), St. Cleer* [S.E.] 8 0 0 .. . . . .	31	..	27 ½ 30	..	2 14 0 .. 0 5 0 - Mar.	1859	..	
867 Cwm Elin (lead), Cardigansh. 7 10 0 .. . . . .	14	..	..	..	0 10 0 .. 0 10 0 - Nov.	1858	..	
128 Cyminswith (lead), Cardigansh. 60 0 0 .. . . . .	300	..	160 0 0 .. 5	..	0 5 0 - Mar.	1859	..	
4076 Devon and Cornwall (copper) . . . . .	4 6 3 .. . . . .	..	13	..	0 10 0 .. 0 2 6 - Feb.	1859	..	
1024 Dev. Gt. Con. (cop.), Tavistock [S.E.] 1 0 0 .. . . . .	470	..	465 475	..	654 0 0 .. 8 0 0 - Mar.	1859	..	
258 Dolcoath (copper, tin), Camborne* . . . . .	128 17 6 .. . . . .	..	305	..	504 10 0 .. 7 0 0 - April.	1859	..	
512 East Bassett (cop.), Redruth [S.E.] 29 10 0 .. . . . .	230	..	220 225	..	6 0 0 .. 0 10 0 - Mar.	1859	..	
300 East Daren (lead), Cardigansh.* . . . . .	32 0 0 .. . . . .	..	110	..	57 0 0 .. 3 0 0 - Feb.	1859	..	
128 East Pool (tin, copper), Pool, Illogan . . . . .	24 3 0 0 .. . . . .	..	175	..	305 0 0 .. 2 10 0 - Aug.	1859	..	
5700 Exmouth (silver-lead), Christow . . . . .	14 0 0 .. . . . .	..	8	..	3 15 0 0 .. 2 6 - April.	1858	..	
1400 Eynam Mining Co. (lead), Derbyshire . . . . .	5 0 0 .. . . . .	..	38	..	18 13 4 .. 1 0 0 - Aug.	1859	..	
2560 Foxdale, Isle of Man, Limited (lead) . . . . .	25 0 0 .. . . . .	..	42	..	60 8 3 .. 1 0 0 - Mar.	1859	..	
456 Grambler and St. Aubyn (cop.), St. Aubyn [S.E.] 54 15 0 .. . . . .	80	..	77 ½ 80	..	21 0 0 .. 0 2 10 0 - Mar.	1859	..	
6000 Great South Toigo [S.E.], Redruth* . . . . .	16 6 .. . . . .	..	15	..	3 19 6 .. 0 5 0 - April.	1859	..	
1024 Herdibot (lead), near Liskeard . . . . .	8 10 0 .. . . . .	..	85 6 .. 84 9	..	5 0 0 .. 0 12 6 - Feb.	1859	..	
160 Levant (copper, tin), St. Just . . . . .	2 10 0 .. . . . .	..	110	..	1081 0 0 .. 5 0 0 - Feb.	1859	..	
400 Lisburne (lead), Cardigansh. Wales* . . . . .	15 15 0 .. . . . .	..	100	..	325 10 0 .. 5 0 0 - Mar.	1859	..	
5000 Mendum Hills (lead), Somerset . . . . .	3 15 0 .. . . . .	..	134	..	1 13 6 .. 0 5 0 - May.	1859	..	
1800 Miners Mining Co., Lim. (id.), Wrexham 25 0 .. . . . .	120	..	28 2 6 .. 0	..	2 10 0 - Feb.	1859	..	
20000 Mining Co. of Ireland (cop., lead, coal) . . . . .	7 0 0 .. . . . .	..	137	..	14 3 2 .. 0 9 0 - Jan.	1859	..	
470 Newtownards Mining Co., Co. Down . . . . .	50 0 .. . . . .	..	35	..	56 0 .. 0 1 0 0 - Sept.	1858	..	
5000 North Doulacough (copper), Camborne* . . . . .	1 6 6 .. . . . .	..	5 5½	..	0 2 6 .. 0 2 6 - Mar.	1859	..	
6000 N. Wh. Bassett (cop., tin), Illogan [S.E.] . . . . .	nil.	..	9 8	..	12 12 0 .. 0 5 0 - Aug.	1858	..	
6400 Par Consols (cop.), St. Cleer [S.E.] . . . . .	1 2 6 .. . . . .	..	14 ½	..	33 5 0 .. 0 10 0 - Mar.	1859	..	
1772 Polberro (tin), St. Agnes (Pr ferential) . . . . .	—	..	—	..	29 10 0 .. 0 25 0 - Nov.	1858	..	
566 Providence (tin), Uny Lelant [S.E.] . . . . .	20 13 2 .. . . . .	..	96	..	84 14 6 .. 5 10 0 - Feb.	1859	..	
2500 Rhosydowlod and Bachdynol (lead) . . . . .	11 5 0 .. . . . .	..	12	..	16 0 .. 0 3 0 - July.	1859	..	
1024 Rosewarne and Herland United . . . . .	7 10 0 .. . . . .	..	14	..	1 0 0 .. 0 1 0 - Mar.	1859	..	
15000 Ruadean Colliery Company, Limited . . . . .	0 5 0 .. . . . .	..	—	..	0 1 10 ¼ 0 1 0 - Aug.	1859	..	
512 South Cardigan (cop.), St. Cleer* [S.E.] 1 5 0 .. . . . .	245	..	240 250	..	278 0 0 .. 5 0 0 - Mar.	1859	..	
256 South Garraw Kenwyn* . . . . .	26 0 0 .. . . . .	..	47 ½	..	4 0 0 .. 2 0 0 - Feb.	1859	..	
512 South Togus (cop.), Redruth, Cornwall* [S.E.] 8 0 0 .. . . . .	76	..	75 77 ½	..	83 10 0 .. 2 0 0 - Mar.	1859	..	
496 South Wheat Frances, Illogan [S.E.] 18 18 9 .. . . . .	205	..	200 205	..	320 5 0 .. 5 0 0 - Mar.	1859	..	
476 St. Ives Consols (cop.), St. Ives* . . . . .	16 0 0 .. . . . .	..	99 100	..	926 0 0 .. 6 0 0 - Feb.	1859	..	
6000 Tinicroft (cop., tin), Pool, Illogan [S.E.] 9 0 0 .. . . . .	43	..	43 ½ 43	..	9 8 6 .. 0 5 0 - April.	1859	..	
6000 Tolvadden (copper), Marazion . . . . .	—	..	8 82 83	..	0 3 0 .. 0 3 0 - Mar.	1859	..	
400 United Mines (copper), Gwennap . . . . .	40 0 .. . . . .	..	120 140	..	67 5 0 .. 5 0 0 - April.	1859	..	
512 Wendron Consols (tin), Wendron . . . . .	23 7 8 .. . . . .	..	42	..	5 0 0 .. 1 0 0 - Mar.	1859	..	
6000 West Bassett (copper), Illogan [S.E.] . . . . .	10 10 0 .. . . . .	..	23	..	15 14 0 .. 0 11 0 - Mar.	1859	..	
512 West Cardigan (cop.), Liskeard [S.E.] 10 0 0 .. . . . .	85	..	85 87 ½	..	147 2 6 .. 2 0 0 - Mar.	1859	..	
6400 West Fowey Consols (tin and copper) . . . . .	7 10 0 .. . . . .	..	74	..	0 2 6 .. 0 2 6 - Mar.	1859	..	
400 West Wheal Frances, Illogan [S.E.] 38 10 0 .. . . . .	405	..	400 410	..	169 0 0 .. 7 0 0 - April.	1859	..	
240 Wheal Bal (tin), St. Just . . . . .	15 0 0 .. . . . .	..	18	..	4 0 0 .. 1 0 0 - Feb.	1859	..	
512 Wheal Bassett (copper), Illogan* [S.E.] 5 2 6 .. . . . .	200	..	190 200	..	519 10 0 .. 6 0 0 - April.	1859	..	
256 Wheal Butler (cop.), Redruth* [S.E.] 5 0 0 .. . . . .	130	..	130 130	..	90 0 .. 0 3 0 0 - April.	1859	..	
512 Wheal Charlotte, Perranporth . . . . .	1 0 8 .. . . . .	..	23 ½ 24 ½	..	0 10 0 .. 2 0 0 - April.	1859	..	
128 Wheal Friendship (copper), Devon . . . . .	50 0 0 .. . . . .	..	90	..	2385 0 0 .. 10 0 - Feb.	1859	..	
1024 Wheal Grylls (tin), Perranporth . . . . .	0 4 0 .. . . . .	..	6	..	0 17 0 .. 0 10 0 - Mar.	1859	..	
5000 Wheal Kitty (tin), St. Agnes . . . . .	10 0 0 .. . . . .	..	43 ½ 44	..	0 8 6 .. 0 2 6 - April.	1859	..	
1024 Wheal Lelant (tin), Uny Lelant [S.E.] 1 7 2 .. . . . .	9	..	9	..	6 10 0 .. 0 10 0 - Mar.	1859	..	
896 Wh. Margaret (tin), Uny Lei. [S.E.] 9 17 6 .. . . . .	74	..	76 78	..	50 5 0 .. 3 10 0 - Feb.	1859	..	
1024 Wh. Mary Ann (id.), Menheniot [S.E.] 9 0 0 .. . . . .	49	..	49 50	..	43 2 6 .. 2 5 0 - Mar.	1859	..	
80 Wheal Owles, St. Just, Cornwall . . . . .	70 0 0 .. . . . .	..	300	..	230 13 0 .. 5 0 0 - Feb.	1859	..	
198 Wheal Seton (tin, copper), Camborne 107 0 0 .. . . . .	145	..	150 160	..	292 0 0 .. 0 3 0 - April.	1859	..	
1040 Wh. Trelewany (sl.-id.), Liskeard [S.E.] 4 10 0 .. . . . .	35	..	32 ½ 35	..	36 10 0 .. 1 0 0 - Jan.	1859	..	
5000 Wicklow (copper), Wicklow . . . . .	5 0 0 .. . . . .	..	41	..	31 15 6 .. 1 10 0 - Jan.	1859	..	

## MINES WITH DIVIDENDS IN ABEYANCE.

1624 Balleswidden (tin), St. Just . . . . .	11 5 0 .. . . . .	..	5 ..	..	12 5 0 .. 0 5 0 - Jan.	1854	..
1200 Brightside & Froggatt Grove, Derbysh. . . . .	3 0 0 .. . . . .	..	3 ½	..	3 0 0 .. 3 0 0 - April.	1856	..
100 Brynford Hall (lead), Flintshire . . . . .	25 0 0 .. . . . .	..	59	..	13 0 0 .. 0 5 0 - July.	1856	..
2000 Bryntai, Llanidloes, Montgomeryshire	4 2 6 .. . . . .	..	5 5½	..	0 2 6 .. 0 2 6 - July.	1856	..
390 Budnick Consols (tin), Perran . . . . .	2 2 6 .. . . . .	..	15	..	0 10 0 .. 0 10 0 - Mar.	1857	..
6000 Bwch (silver-lead), Cardigansh. . . . .	3 9 0 .. . . . .	..	134	..	0 2 6 .. 0 2 6 - June.	1856	..
4076 Calstock Consols (copper) . . . . .	5 0 0 .. . . . .	..	4 ½ 5	..	0 2 6 .. 0 2 6 - Dec.	1857	..
2048 Camborne (tin), Calstock							